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Note

Death by Arugula: How Soil Contamination Stunts Urban Agriculture, and What the Law Should Do About It

Steven A. Platt*

Interest in backyard and community gardens has grown in recent years as people increasingly consider what food they eat, where it comes from, and how it is transported to their local market.¹ Almost 250 million people in the United States now live in urban areas,² so a large percentage of the people in this country stand to benefit from establishing an urban garden. In fact, fifteen percent of the world's food is grown in urban areas,³ and as many as 18,000 community gardens may be operating

* J.D. Candidate 2013, University of Minnesota Law School; B.S. 2007, University of Iowa. I owe many people thanks for helping me grow this Note to fruition. Mary W. Marrow of the Public Health Law Center first posed the issues explored here, and in reviewing drafts always let me know when my writing made her scratch her head. Professor Alexandra B. Klass, my adviser, read numerous drafts and helped me fine-tune my solution. Jamie Buskirk and Scott Sorenson graciously waded through earlier, cruder versions of this paper, and what follows reflects many of their profound editing suggestions. Steve Berge illuminated fundamental flaws in my analysis and suggested very useful revisions, in addition to being a most dear friend since the dawn of this millennium. More generally, I give sincere thanks to all of my family and friends, without whom I never would have survived law school. Copyright © 2013 by Steven A. Platt.

1. See STEVE MARTINEZ ET AL., U.S. DEP'T OF AGRIC., ECONOMIC RESEARCH REPORT NO. 97, LOCAL FOOD SYSTEMS: CONCEPTS, IMPACTS, AND ISSUES iii–v (2010); Adrian Higgins, *Squeezed for Space in the City, Green Thumbs Get Inventive*, WASH. POST, Aug. 13, 2009, at H1; see also Erin A. Williamson, *A Deeper Ecology: Community Gardens in the Urban Environment* 5–16 (Sept. 30, 2002) (unpublished M.A. thesis, University of Delaware), available at http://www.cityfarmer.org/AP-city_farmer.doc (exploring the different contexts in which American urban agriculture has historically arisen).

2. *2010 Census Urban Area FAQs*, U.S. CENSUS BUREAU, <http://www.census.gov/geo/reference/ua/uafaq.html> (last updated Mar. 7, 2013).

3. *Urban Agriculture*, NAT'L AGRIC. LIBRARY, U.S. DEP'T OF AGRIC., <http://afsic.nal.usda.gov/farms-and-community/urban-agriculture> (last updated Mar. 8, 2013).

nationwide.⁴ However, arable land is rare in urban areas, so potential gardeners are often left with sites adjacent to, or previously occupied by, industrial and commercial enterprises.⁵ Those properties can present serious health concerns because their soil often contains industrial or urban pollutants well in excess of natural levels.⁶ For example, the Illinois Environmental Protection Agency considers over half of the City of Chicago's land area to be contaminated.⁷ Some organizations cite soil contamination as their biggest concern with urban farming.⁸

Soil contamination poses very real dangers to human health. City of Montreal toxicologists recently shut down 167 community garden plots for having impermissibly high levels of soil contamination.⁹ In suburban San Francisco, residents living next to a Superfund site have experienced skin rashes, bloodshot eyes, vomiting, and miscarriages for years.¹⁰ There, neighbor Basilia de Guzman believes that regularly eating vegetables grown in her backyard has caused many of her family's health problems.¹¹ Ms. de Guzman and her neighbors filed a

4. PETER HARNIK, URBAN GREEN: INNOVATIVE PARKS FOR RESURGENT CITIES 83 (2010).

5. Jon Hurdle, *Where Industry Once Hummed, Urban Garden Finds Success*, N.Y. TIMES, May 20, 2008, at A18.

6. Joel B. Eisen, "Brownfields of Dreams"?: *Challenges and Limits of Voluntary Cleanup Programs and Incentives*, 1996 U. ILL. L. REV. 883, 890–93, 895. For a discussion of why American soil is contaminated, see John E. Mogk et al., *Promoting Urban Agriculture as an Alternative Land Use for Vacant Properties in the City of Detroit: Benefits, Problems and Proposals for a Regulatory Framework for Successful Land Use Integration*, 56 WAYNE L. REV. 1521, 1537 (2010) (pinpointing contamination sources as "demolished buildings, emissions from lead-based gasoline engines, and airborne lead contaminants from [cities'] industry").

7. Matthew D. Fortney, Comment, *Devolving Control over Mildly Contaminated Property: The Local Cleanup Program*, 100 NW. U. L. REV. 1863, 1864 n.8 (2006) (citing data from the Illinois Environmental Protection Agency).

8. E.g., Petti Fong, *Parking Lot Gets Green Makeover*, TORONTO STAR, Sept. 2, 2012, at IN1, available at 2012 WLNR 18669199.

9. Jason Magder, *Borough Closes 167 Garden Plots*, MONTREAL GAZETTE, Apr. 1, 2008, at A6. The city's Department of Public Health insists, however, that the closures were merely precautionary. *Id.* But see Op-Ed., *End Secrecy on Contaminated Plots*, MONTREAL GAZETTE, Apr. 30, 2007, at A16 ("[If] there is 'no immediate danger' to public health, . . . why close any sites? This is an incoherent position.").

10. Angelica Pence, *Living on Toxic Ground: After 10-Year Battle, Daly City Residents Finally Being Heard*, S.F. CHRON., Jan. 20, 2000, at A1.

11. See *id.* (noting that Ms. de Guzman switched to gardening in planters).

\$125 million class-action suit against the federal government, which previously owned the land, but the suit was dismissed on summary judgment.¹² A later class action filed by 195 neighborhood residents against the County and the utility company that operated on the site before the federal government owned it was similarly unsuccessful.¹³ County health officials now instruct neighborhood gardeners to wear protective gloves and avoid contact with the soil.¹⁴

Individuals and society at large stand to reap enough benefits from urban agriculture that policymakers should consider how to address unhealthy soil contamination. Yet federal, state, and local governments currently present an uncoordinated patchwork of standards and guidelines with regard to monitoring urban soil quality and mitigating contaminated soil for urban gardens.¹⁵ The relevant regulatory agencies are authorized to intervene to remediate properties, but the procedures for doing so are cumbersome and costly.¹⁶ These agencies have enforcement discretion, and will rarely intervene on behalf of lesser-contaminated properties; not every urban residential backyard is a Love Canal.¹⁷ The lack of easy and inexpensive remedies for many segments of the population imperils the recent surge of interest in urban agriculture.¹⁸ As one nonprofit director put it, “In many cases, individuals and families are a

12. *Laurence v. United States*, 851 F. Supp. 1445, 1448, 1452, 1453 (N.D. Cal. 1994), *aff’d sub nom. Laurence v. Dep’t of the Navy*, 59 F.3d 112 (9th Cir. 1995).

13. *Laurence v. Pac. Gas & Elec. Co.*, No. A080941 (Cal. Ct. App. May 15, 2000).

14. Angelica Pence, *Toxic Takeout: Ridding Midway Village of Tainted Soil—Again*, S.F. CHRON., Aug. 25, 2001, at A13.

15. See *infra* Part I.B–D.

16. See *infra* Part II.A–B.

17. In the 1940s and 1950s, the Hooker Chemicals & Plastics Company disposed toxic chemical wastes into Love Canal in Niagara Falls, New York. *United States v. Hooker Chems. & Plastics Corp.*, 850 F. Supp. 993, 997–98 (W.D.N.Y. 1994). Over the next few decades, chemical residues began surfacing and seeping into neighboring homes, leading New York to declare a State Health Emergency in 1978. *Id.* at 998. The ensuing outcry spurred Congress to pass the federal Superfund law in 1980. Press Release, U.S. Dep’t of Justice, Occidental to Pay \$129 Million in Love Canal Settlement (Dec. 21, 1995) (on file with author); see Pub. L. No. 96-510, 94 Stat. 2767 (1980). The U.S. Environmental Protection Agency cleaned the area and later recovered \$129 million in restitution from Hooker. Press Release, U.S. Dep’t of Justice, *supra* note 17.

18. See *infra* Part II.A–B.

little bit ahead of the policymakers in terms of understanding just how important [urban agriculture] is.”¹⁹

Meanwhile, private parties have benefited from hazardous substance reimbursement funds available in other contexts, notably for underground petroleum storage tank leakages and fertilizer and pesticide contamination.²⁰ Implementing such a fund for urban agriculture could effectuate healthy, contaminant-free community gardens for more urban dwellers.²¹

This Note discusses the magnitude of the issue of soil contamination in community gardens, and how a reimbursement fund tailored to urban farming would resolve many of the shortcomings inherent in current legal approaches. Part I provides an overview of urban gardens and soil contamination, how individuals can address soil contamination outside the legal sphere, and what laws currently regulate community garden pollution, such as environmental torts and remedial statutes. This Part also comparatively describes various jurisdictions’ funds that reimburse private parties for out-of-pocket soil remediation costs. Part II explains the various deficiencies in legal responses to identified soil contamination, and how other private party reimbursement funds fare more successfully in other contamination situations. Finally, Part III recommends that governments close the gap in regulating soil contamination by creating a small-scale urban agriculture reimbursement account and building on the lessons and best practices of other hazardous substance funds.

I. THE RISE OF URBAN AGRICULTURE, THE NATURE OF SOIL CONTAMINATION, AND THE LAW’S RELATIONSHIP WITH BOTH

Urban agriculture provides a wide spectrum of benefits, both for individuals, such as increased access to inexpensive fresh food, and for communities, such as the increased economic activity associated with more gardening. This Part discusses many of the practice’s innumerable benefits, and further examines soil contamination and how it compromises these benefits. Next, this Part examines how gardeners can address soil contamination: on their own, through grants, and through litiga-

19. *Morning Edition: Not All Communities Welcome Urban Gardening* (National Public Radio broadcast Aug. 10, 2009) (quoting Roger Doiron, the director of a nonprofit promoting local food).

20. See *infra* Part II.C.

21. See *infra* Part III.

tion predicated on statutory and common law causes of action. Then, it looks at state trust funds that actually reimburse private parties for remediating their soil in certain situations.

A. WHY URBAN AGRICULTURE AND SOIL CONTAMINATION
DESERVE LEGAL ATTENTION

Urban agriculture is generally the practice of growing produce or herbs in a small-scale urban or suburban setting,²² and comprises single-user, residential vegetable gardens as well as entrepreneurial community farms.²³ The benefits of urban agriculture are enjoyed by both individuals specifically and society generally. The fresh and healthy food available from backyard and community gardens combats malnutrition, obesity, fatigue, and depression.²⁴ Unlike industrially produced food, food grown in backyards or on nearby plots does not have to travel over great distances, so consumers know the source of their food and what went into growing it.²⁵ Producing food locally reduces packing, refrigeration, storage, and transportation needs, which in turn lowers the energy costs and usage inherent in food production.²⁶ Urban gardens create social,²⁷ educational,²⁸

22. See JAC SMIT ET AL., UNITED NATIONS DEV. PROGRAMME, URBAN AGRICULTURE: FOOD, JOBS AND SUSTAINABLE CITIES ch. 1, at 1–2 (2001 ed.). More specifically, it encompasses “any processes that produce traditional subsistence, nutritional or commercially profitable food or other grown or raised products, removed from rural domains, and instead cultivate them in special intensive conditions within the urban context or in its surrounding buffer, peri-urban, regions.” CHARLES W. LESHER JR., URBAN AGRICULTURE: A LITERATURE REVIEW 5 (2006), available at <http://www.docstoc.com/docs/10244232/Urban-Agriculture>.

23. Dana May Christensen, *Securing the Momentum: Could a Homestead Act Help Sustain Detroit Urban Agriculture?*, 16 DRAKE J. AGRIC. L. 241, 245 (2011). The most common form of urban agriculture in the United States is the community garden: a “neighborhood garden in which individuals have their own plots yet share in the garden’s overall management.” Dorothy A. Borrelli, *Filling the Void: Applying a Place-Based Ethic to Community Gardens*, 9 VT. J. ENVTL. L. 271, 273 (2008) (quoting LAURA LAWSON, CITY BEAUTIFUL: A CENTURY OF COMMUNITY GARDENING IN AMERICA 3 (2005)). This Note uses the terms “urban agriculture” and “community gardens” interchangeably, as the problem of soil contamination affects both equally.

24. Kathryn A. Peters, Note, *Creating a Sustainable Urban Agriculture Revolution*, 25 J. ENVTL. L. & LITIG. 203, 215 (2010).

25. See Daniele Giovannucci et al., *Defining and Marketing “Local” Foods: Geographical Indications for U.S. Products*, 13 J. WORLD INTELL. PROP. 94, 99 (2010) (explaining that consumers have difficulty making informed choices when “agricultural processes are located elsewhere”).

26. Mogk et al., *supra* note 6, at 1534.

27. See WCCO 4 News at 10 (WCCO-TV television broadcast Mar. 31,

and employment opportunities,²⁹ and they may increase the value of nearby properties³⁰—as much as 9.4% in some impoverished neighborhoods.³¹ Investment in urban farms benefits the local economy by having a significant multiplier effect;³² one report estimates that every dollar invested in urban gardens yields six dollars' worth of vegetables.³³ Urban agriculture can moderate food insecurity, which stems from such threats as climate change and terrorist attacks.³⁴ The U.S. Department of Agriculture reported that 14.9% of all American households were “food insecure” at some point in 2011, compared with 14.7% in 2009.³⁵ Finally, urban agriculture revitalizes neighborhoods by putting abandoned land to a productive use.³⁶ This blight reduction in turn suppresses crime and reduces municipal police and maintenance expenses.³⁷ For all of these reasons, governments should actively encourage urban gardening.

Contaminated soil can reduce or eliminate all of these benefits. Urban soil in particular is at a heightened risk of contam-

2012), *available at* <http://minnesota.cbslocal.com/2012/03/31/mound-church-helps-low-income-families-grow-food/> (“[P]eople just wanted to feel more connected to the communities where they are from and where their food comes from. It’s something that we really lost along the way.” (quoting a community gardening organization outreach coordinator)).

28. SMIT ET AL., *supra* note 22, at ch. 7, at 3 (reasoning that urban agriculture frees up household income, allowing for more education expenditures).

29. Borrelli, *supra* note 23, at 276.

30. Ioan Voicu & Vicki Been, *The Effect of Community Gardens on Neighboring Property Values*, 36 REAL EST. ECON. 241, 241–43 (2008) (finding that community gardens have a statistically significant positive impact on property values within 1000 feet of the garden).

31. *Id.* at 277.

32. See SMIT ET AL., *supra* note 22, at ch. 7, at 15 (discussing the economic benefits of urban agriculture in several countries); Mogk et al., *supra* note 6, at 1531.

33. Mogk et al., *supra* note 6, at 1531.

34. Kate H. Brown & Andrew L. Jameton, *Public Health Implications of Urban Agriculture*, 21 J. PUB. HEALTH POL’Y 20, 24–26 (2000); Melanie J. Duda, Note, *Growing in the D: Revising Current Laws to Promote a Model of Sustainable City Agriculture*, 89 U. DET. MERCY L. REV. 181, 182–83 (2012).

35. ALISHA COLEMAN-JENSEN ET AL., U.S. DEP’T OF AGRIC., ECON. RESEARCH SERV., ECONOMIC RESEARCH REPORT NO. 141, HOUSEHOLD FOOD SECURITY IN THE UNITED STATES IN 2011, at 4 (2012), *available at* <http://www.ers.usda.gov/media/884525/err141.pdf>; MARK NORD ET AL., U.S. DEP’T OF AGRIC., ECON. RESEARCH SERV., ECONOMIC RESEARCH REPORT NO. 108, HOUSEHOLD FOOD SECURITY IN THE UNITED STATES, 2009, at 4 (2010), *available at* http://www.ers.usda.gov/media/122550/err108_1_.pdf.

36. Mogk et al., *supra* note 6, at 1523–24.

37. *Id.* at 1534.

ination exceeding natural levels because of past industrial uses.³⁸ Toxic amounts of herbicides, pesticides, petroleum hydrocarbons, solvents, and heavy metals commonly saturate urban soil.³⁹

Even though symptoms may not be immediately present, exposure to impacted soil can be a serious health risk.⁴⁰ Many compounds poison insidiously, and their effects on human health may take years to manifest.⁴¹ For instance, lead pervades much urban soil.⁴² Lead poisoning is the most common environmental disease of young children, constituting a “silent epidemic.”⁴³ Similarly, the effects of arsenicosis—arsenic poisoning—can take anywhere from five to twenty years to develop.⁴⁴ Often, symptoms do not arise until after the hazards’ impact has become irreversible.⁴⁵ Of course, it is very difficult to predict the extent to which an individual will develop symptoms, if at all, from environmental exposure.⁴⁶ Still, the threat

38. Allison Houlihan Turner, *Urban Agriculture and Soil Contamination: An Introduction to Urban Gardening*, UNIV. OF LOUISVILLE, ENVTL. FIN. CTR. 2 (2009), http://louisville.edu/cepm/publications/practice-guides-1/PG25%20-%20Urban%20Agriculture%20-%20Soil%20Contamination.pdf/at_download/file; see also Mogk et al., *supra* note 6, at 1537 (discussing high levels of lead in soil in large cities across the United States).

39. Turner, *supra* note 38, at 1–2. While it is true that herbicides and pesticides can be safely used for agricultural purposes, in large amounts they are unhealthy. RACHEL CARSON, *SILENT SPRING* 208, 224–30, 237 (1962).

40. The chemicals commonly found in soil can cause anything from skin cancer (from arsenic) to nausea and partial paralysis (from the pesticide DDT). See *DDT Health and Safety Update*, DEPT OF THE INTERIOR, NAT’L PARK SERV. 1–3 (Dec. 2000), <http://www.nps.gov/museum/publications/conserveogram/02-14.pdf>; *Hazards of Short-Term Exposure to Arsenic-Contaminated Soil*, WASH. STATE DEP’T OF HEALTH, OFFICE OF ENVTL. HEALTH ASSESSMENT SERVS. 2, 5–6 (Jan. 1999), <http://www.doh.wa.gov/Portals/1/Documents/Pubs/334-284.pdf>.

41. See Gitanjali Nain Gill, *A Green Tribunal for India*, 22 J. ENVTL. L. 461, 470 (2010) (citing data from the World Health Organization).

42. Mogk et al., *supra* note 6, at 1537; Felicity Barringer, *To Nullify Lead, Add a Bunch of Fish Bones*, N.Y. TIMES, July 21, 2011, at A12.

43. *Lead Poisoning: Hearings on H.R. 2840 Before the Subcomm. on Health & the Env’t of the Comm. on Energy & Commerce*, 102d Cong. 1, 195 (1992).

44. Gill, *supra* note 41, at 470.

45. See Daniel A. Okun, *Drinking Water and Public Health Protection*, in *DRINKING WATER REGULATION AND HEALTH* 17–18 (Frederick W. Pontius ed., 2003) (discussing this eventuality with water contamination).

46. See Steve C. Gold, *The “Reshapement” of the False Negative Asymmetry in Toxic Tort Causation*, 37 WM. MITCHELL L. REV. 1507, 1510–11 (2011) (noting the unique difficulties of proving causation in toxic tort suits); Ken Sexton et al., *Estimating Exposure and Dose to Characterize Health Risks: The Role of Human Tissue Monitoring in Exposure Assessment*, 103 ENVTL.

is substantial enough that as the public sector aims to encourage urban gardening, it should also consider how to help mitigate the health problems that can develop as a result of contaminated soil.

B. HOW GARDENERS CAN ADDRESS SOIL CONTAMINATION OUTSIDE THE LAW

Obviously, prospective gardeners have ways to remediate contaminated soil without legal redress. Cleaning contaminated realty requires two distinct actions: assessment and remediation. Once gardeners test their soil and discover contamination,⁴⁷ they can treat it in many different ways. Common remediation methods include building raised beds that physically separate impacted soil from clean, imported soil,⁴⁸ using soil amendments to stabilize contaminants in soil,⁴⁹ and removing all contaminated soil and replacing it with clean soil.⁵⁰ More innovative but less common techniques include using ground-up fish bones to reduce the amount of lead in the soil⁵¹ and phytoremediation, which uses non-edible plants such as willows to degrade or extract contaminants from the soil.⁵² Many agencies provide private citizens and organizations with information on how to alleviate soil quality issues on their own.⁵³

HEALTH PERSP. (SUPPLEMENT 3) 13, 13 (1995) (“[E]nvironmentally induced chronic disease is highly complex: multiple exposures and causative agents, long latency periods, and variability within and among individuals must be considered.”).

47. See, e.g., Manjula Nathan, *Soil Testing for Lead for Garden and Landscape Soils*, MO. ENV’T & GARDEN (Apr. 1, 2009), <http://ipm.missouri.edu/MEG/2009/4/Soil-Testing-for-Lead-for-Garden-and-Landscape-Soils/>.

48. Mogk et al., *supra* note 6, at 1536–37.

49. See generally Engracia Madejón et al., *Soil Amendments Reduce Trace Element Solubility in a Contaminated Soil and Allow Regrowth of Natural Vegetation*, 139 ENVTL. POLLUTION 40 (2006) (discussing the positive effects of three soil amendments on soil chemical properties and vegetation).

50. *Reusing Potentially Contaminated Landscapes: Growing Gardens in Urban Soils*, U.S. ENVTL. PROT. AGENCY (Spring 2011), <http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100AV48.PDF>.

51. Barringer, *supra* note 42, at A12.

52. See Ute Krämer, *Phytoremediation: Novel Approaches to Cleaning up Polluted Soils*, 16 CURRENT OPINION BIOTECHNOLOGY 133, 133–34 (2005) (discussing this method).

53. See, e.g., *SoilFacts: Minimizing Risks of Soil Contaminants in Urban Gardens*, N.C. COOP. EXTENSION SERV. (Jan. 2012), http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-78_Urban_Soil_Contaminants.pdf.

C. GOVERNMENT LOANS AND GRANTS FOR SOIL ASSESSMENT
AND REMEDIATION

Government involvement in urban agriculture is hardly novel. The government has long involved itself in, and fostered an enthusiasm for, urban farming.⁵⁴ For example, during the two World Wars the federal government aggressively encouraged urban and suburban residents to grow their own food.⁵⁵ The ensuing victory gardens contributed roughly forty percent of all fresh vegetables consumed in the United States in 1942 and 1943.⁵⁶ Today, many jurisdictions expressly consider urban agriculture through zoning codes⁵⁷ or programs designed to increase awareness of locally growing foods.⁵⁸ More generally, the government greatly influences America's relationship with food through its subsidies, food safety laws, nutritional standards, and myriad regulations.⁵⁹

Agencies at all levels of government offer grants to assess and clean up properties, especially brownfields.⁶⁰ Brownfields are abandoned or underused properties containing, or perceived as containing, hazardous substances. This actual or seeming contamination very often complicates a property's gardening potential.⁶¹ The federal government estimates there may be as many as half a million brownfields in this country, although the exact number is unknown.⁶²

54. See, e.g., N.Y. GEN. MUN. LAW § 96 (McKinney 1986) (authorizing municipalities to hold land for individuals and community organizations and to assist in the development of community gardens by contributing initial site preparation and materials such as soil, compost, seeds, and tools).

55. Clive Thompson, *Grow Your Own*, WIRED, Sept. 2008, at 56, 56.

56. *Id.*

57. See, e.g., CLEVELAND, OHIO CODE OF ORDINANCES § 336.01 (effective Mar. 9, 2007) (adopting a zoning classification for urban garden districts).

58. See, e.g., WIS. STAT. ANN. § 93.45 (West 2012) (directing the state Department of Agriculture to "conduct a program to increase awareness and consumption of locally produced foods").

59. David Burnett, Note, *Fast-Food Lawsuits and the Cheeseburger Bill: Critiquing Congress's Response to the Obesity Epidemic*, 14 VA. J. SOC. POL'Y & L. 357, 373–74 (2007).

60. *Brownfields and Land Revitalization: Grants & Funding*, U.S. ENVTL. PROT. AGENCY, http://epa.gov/brownfields/grant_info/index.htm (last updated Aug. 15, 2012). See generally Julianne Kurdila & Elise Rindfleisch, *Funding Opportunities for Brownfield Redevelopment*, 34 B.C. ENVTL. AFF. L. REV. 479 (2007) (identifying funding opportunities for brownfield development generally, though most of the identified sources only apply to redevelopment for for-profit uses).

61. See 42 U.S.C. § 9601(39)(A) (2006).

62. JUSTIN B. HOLLANDER ET AL., PRINCIPLES OF BROWNFIELD REGENER-

The U.S. Environmental Protection Agency (EPA) anticipates awarding \$14 million in seventy-three remediation grants in fiscal year 2013.⁶³ However, these grants are available only to governments, tribes, and nonprofits.⁶⁴ The EPA is even more parsimonious with assessment grants, dispersing them to governments, tribes, and chartered or sanctioned redevelopment agencies only.⁶⁵ Eligible sites are defined as any brownfield, using the expansive definition above.⁶⁶ The federal government awards grants in more specific situations; one U.S. Department of Agriculture initiative pertains only to community gardens at eligible high-poverty schools.⁶⁷

At the state level, an exemplary program for assessing soil contamination is the Minnesota Targeted Brownfield Assessment Program.⁶⁸ The program assists individuals and organizations in redeveloping brownfields into urban gardens, and provides technical advice and assistance with developing a work plan.⁶⁹

The Oregon Department of Environmental Quality administers a typical state cleanup financing program. In Oregon, any person may apply for a loan or grant from the Oregon Brownfields Redevelopment Fund, and an organization may apply for a loan from the Oregon Coalition Brownfields Cleanup Fund.⁷⁰ The state's two brownfields funds give money to en-

ATION: CLEANUP, DESIGN, AND REUSE OF DERELICT LAND 4 (2010). Others estimate the number could be as high as one million. Scott W. Brunner, Note, *Sharing the Green: Reformatting Wisconsin's Forgotten Green Space Grant with a Public-Private Partnership Design*, 95 MARQ. L. REV. 305, 307 (2011).

63. *FY13 Guidelines for Brownfields Cleanup Grants*, U.S. ENVT'L PROT. AGENCY, <http://www.epa.gov/oswer/docs/grants/epa-oswer-oblr-12-09.pdf> (last visited Mar. 11, 2013).

64. *Id.*

65. *FY13 Guidelines for Brownfields Assessment Grants*, U.S. ENVT'L PROT. AGENCY, <http://www.epa.gov/oswer/docs/grants/epa-oswer-oblr-12-07.pdf> (last visited Mar. 11, 2013).

66. 42 U.S.C. § 9406(k)(3).

67. *People's Garden School Pilot Program*, U.S. DEP'T OF AGRIC., GRANTS.GOV (Aug. 10, 2010), <http://www.grants.gov/search/search.do?mode=VIEW&oppId=56501>.

68. *Minnesota Targeted Brownfield Assessment Program*, MINN. POLLUTION CONTROL AGENCY (Sept. 2010), <http://www.pca.state.mn.us/index.php/view-document.html?gid=2418>.

69. *Id.*

70. OR. ADMIN. R. 123-135-0030(1) (2001); OR. ADMIN. R. 123-140-0030(1)-(2) (2010).

vironmental actions for “site redevelopment that facilitates economic development or community revitalization.”⁷¹

D. CAUSES OF ACTION FOR REDRESS OF SOIL CONTAMINATION FOR URBAN AGRICULTURE

Soil contamination in urban agriculture reaches several areas of the law, including environmental law, property law, and tort law.⁷² Courts and legislatures have not specifically crafted urban agriculture-specific remedies, but litigants have sometimes succeeded in bringing actions for contaminated soil in general on these common law theories. Usually, an aggrieved grower will have suffered at least injury to property—that is, the contamination thwarts a productive garden, thereby reducing the land’s value—but might also have suffered injury to person—that is, enjoying the contaminated garden caused detriment to personal health.

1. Classic Environmental Tort and Contract Claims Can Apply to Urban Gardens

Private parties have legally addressed contaminated soil by suing responsible polluting parties directly under the common law. The availability and effectiveness of this remedy varies widely across jurisdictions, but applicable torts often include trespass,⁷³ nuisance,⁷⁴ strict liability,⁷⁵ and negligence;⁷⁶

71. *Brownfields*, BUS. OR., <http://www.oregon4biz.com/Business-financing-resources/Oregon-Finance-Programs/Brownfields-Redevelopment-Fund/> (last visited Mar. 11, 2013); see also OR. REV. STAT. ANN. § 285A.188(3)(b)(ii) (West 2012) (requiring that the “environmental action provide[] a substantial public benefit”).

72. For a discussion of other legal issues relating to urban gardens not involving soil contamination, see generally Jane E. Schukoske, *Community Development Through Gardening: State and Local Policies Transforming Urban Open Space*, 3 N.Y.U. J. LEGIS. & PUB. POL’Y 351 (2000) (tax law, nonprofit law, liability concerns, and basic property law) and Megha Satyanarayana, *Oak Park Family in Hubbub over Garden to Leave State*, DETROIT FREE PRESS, Aug. 25, 2011, at A10 (city ordinances).

73. See, e.g., *In re Tutu Wells Contamination Litig.*, 909 F. Supp. 991, 996 (D.V.I. 1995) (finding that for nuisance claims in the environmental contamination context, “interference with one’s use or enjoyment of his land may, but need not, arise from a physical harm or invasion to that land”).

74. See, e.g., *Hoery v. United States*, 324 F.3d 1220, 1221–22 (10th Cir. 2003) (finding the federal government liable for nuisance and continuing trespass for negligently releasing toxic chemicals into the ground that had migrated onto the plaintiff’s property); see also Douglas F. Gansler, *Protecting Maryland’s Environment: A Holistic Solution*, 40 U. BALT. L.F. 205, 218–22 (2010) (arguing the tort of nuisance fills a regulatory gap in the enforcement of envi-

less common are emotional distress⁷⁷ and medical monitoring.⁷⁸ Contractual claims⁷⁹ and causes of action based on disclosure laws⁸⁰ can also be effective against sellers or lessors who fail to inform their buyers or tenants of soil contamination under disclosure laws. For example, a gardener may sue for fraud if a

ronmental law). The theories of trespass and nuisance are closely related but distinct: "A trespass is a direct infringement of another's right of possession. Where there is no physical invasion of property, as with intangible intrusions such as noise and odor, the cause of action is for nuisance rather than for trespass." *Padilla v. Lawrence*, 685 P.2d 964, 971 (N.M. Ct. App. 1984) (citations omitted).

75. See, e.g., *Dep't of Env'tl. Prot. v. Ventron Corp.*, 468 A.2d 150, 160 (N.J. 1983) ("[M]ercury and other toxic wastes are 'abnormally dangerous,' and the disposal of them, past or present, is an abnormally dangerous activity.").

76. See, e.g., *Kosmacek v. Farm Serv. Co-op of Persia*, 485 N.W.2d 99, 100–01 (Iowa Ct. App. 1992) (affirming a trial court's award of damages when defendants negligently allowed herbicide tanks to overflow into plaintiff's property).

77. See, e.g., *Johnson v. Orleans Parish Sch. Bd.*, 975 So. 2d 698, 711–12 (La. Ct. App. 2008) (noting damages can be awarded for emotional distress "caused not by the usual worry or anxiety associated with property damage, but legitimate concern about health effects," to plaintiffs that had purchased land the sellers did not disclose was the site of a closed toxic landfill). But see *Kane v. Cameron Int'l Corp.*, 331 S.W.3d 145, 149–50 (Tex. App. 2011) (rejecting a claim for "fear of dreaded disease" where the defendant's release of toxic chemicals allegedly caused cancer, because Texas does not recognize a claim for fear of developing a disease).

78. See, e.g., *Redland Soccer Club, Inc. v. Dep't of the Army & Dep't of Def.*, 696 A.2d 137, 142, 145–46 (Pa. 1997) (establishing this tort and deciding a trust fund is the suitable equitable remedy). Some courts not recognizing this cause of action have construed it as a request for equitable relief. *Mehl v. Canadian Pac. Ry. Ltd.*, 227 F.R.D. 505, 516 (D.N.D. 2005) (collecting cases).

79. See, e.g., *Griffith v. Byers Constr. Co. of Kan., Inc.*, 510 P.2d 198, 200, 204–05 (Kan. 1973) (declaring liability for a seller who makes a fraudulent misrepresentation or concealment material to the transaction when the buyer relies upon the fraud, and determining that a prospective purchaser of a residential building site *would* consider the soil's saline condition a material factor); *Kaddo v. King Serv. Inc.*, 673 N.Y.S.2d 235, 236–37 (N.Y. App. Div. 1998) (affirming a seller's liability for fraud for not reporting extensive gasoline leakage to the property buyer).

80. See, e.g., *Interstate Land Sales Full Disclosure Act*, 15 U.S.C. §§ 1702–1703 (2006) (requiring developers of subdivisions of 100 or more non-exempt lots to provide each purchaser with a disclosure document called a "property report"); CAL. CIV. CODE § 1102.6 (West 2007) (requiring sellers of residential realty to disclose the presence of "[s]ubstances, materials, or products which may be an environmental hazard such as . . . contaminated soil"); MINNEAPOLIS, MINN. CODE OF ORDINANCES, tit. 12, ch. 248.30 (2006) (requiring sellers to disclose any government-directed environmental testing, removal, or remediation). However, unless the applicable disclosure law provides a private cause of action, it is outside the scope of this Note.

previous owner failed to disclose soil contamination on the purchased property. Concealment, as contrasted with fraud, requires only an act of omission instead of an affirmative act.⁸¹

Class actions have been appropriate devices in large-scale contamination cases, but they provide no real aid to the more common, small-scale incidents of soil contamination. Groups of prospective gardeners generally must satisfy four prerequisites for class certification: numerosity, commonality, typicality, and adequacy of representation.⁸² A class action seeking money to remediate garden soil must be superior to other adjudicative methods, and common questions of law and fact must predominate.⁸³ Specific causation and damages require individual consideration, but class treatment can be workable for mass toxic torts.⁸⁴

Very few reported cases involve claims of damages for contaminating an urban garden specifically. One such case, *Quarterman v. Kefauver* from a California state appellate court,⁸⁵ illustrates how gardeners confronting soil contamination can use litigation to fund remediation. The plaintiffs were a married couple that had just bought their first house.⁸⁶ The wife, an avid gardener, said she was drawn to the property by the gardening potential of its large backyard.⁸⁷ The couple tilled their backyard and began growing tomatoes, cucumbers, apricots, chard, raspberries, and many other herbs and flowers.⁸⁸ Shortly thereafter, their next-door neighbor began sanding and repainting her old house, which released lead-bearing paint

81. See, e.g., *Barnhouse v. City of Pinole*, 183 Cal. Rptr. 881, 884, 894 (Cal. Ct. App. 1982) (finding liability for concealment where the defective soil conditions consisted of soil seepage and slides).

82. See, e.g., FED. R. CIV. P. 23(a); ARIZ. R. CIV. P. 23(a); GUAM R. CIV. P. 23(a); S.D. CODIFIED LAWS § 15-6-23(a) (2005).

83. See, e.g., FED. R. CIV. P. 23(b)(3); FLA. R. CIV. P. 1.220(b)(3); TENN. R. CIV. P. 23.02(3); *Puerto Rico v. M/V Emily S*, 158 F.R.D. 9, 15 (D.P.R. 1994).

84. See *In re Agent Orange Prod. Liab. Litig.*, 506 F. Supp. 762, 783, 787–88 (E.D.N.Y. 1980) (certifying a class in Agent Orange defoliant litigation, though recognizing that “there is a major dispute over whether Agent Orange can cause the injuries in question, and there are separate disputes over whether the exposure claimed in each case did cause the injuries claimed”).

85. 64 Cal. Rptr. 2d 741 (Cal. Ct. App. 1997).

86. Respondents’ and Cross-Appellants’ Opening Brief at 4, *Quarterman*, 64 Cal. Rptr. 2d 741 (No. A073984), 1996 WL 33454437 at *4.

87. *Id.*

88. Reply Brief of Cross-Appellants John Quarterman and Fabienne Blanc, *Quarterman*, 64 Cal. Rptr. 2d 741 (No. A073984), 1997 WL 33562194 at *20 & n.5.

dust and paint chips into the couple's topsoil.⁸⁹ Fearing lead contamination, the plaintiffs mostly stopped gardening.⁹⁰ When the couple tested their soil, they found it to be ninety-seven times the state threshold for hazardous waste.⁹¹ Unable to convince their neighbor to stop sanding altogether or to adopt paint removal methods that would generate less dust, the couple sued.⁹² A jury awarded the plaintiffs \$120,850 in economic damages and \$25,000 in noneconomic damages on theories of nuisance, trespass, and negligence.⁹³

2. Major Environmental Statutes Used in Larger-Scale Contamination Situations

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) creates a federal remedy for soil contamination.⁹⁴ CERCLA imposes strict liability⁹⁵ on any party that causes the release of hazardous substances at a facility.⁹⁶ Various environmental statutes define what constitutes a CERCLA "hazardous substance,"⁹⁷ and the Administrator of the EPA has discretion to further designate compounds as such.⁹⁸ Because the law specifically excludes "petroleum, including crude oil or any fraction thereof" from the EPA's purview,⁹⁹ CERCLA provides no aid to many victims of soil contamination.¹⁰⁰

89. *Quarterman*, 64 Cal. Rptr. 2d at 742-43.

90. *Id.* at 743.

91. Respondents' and Cross-Appellants' Opening Brief, *supra* note 86, at 6-7.

92. *Id.* at 6-8.

93. *Id.* at 9.

94. 42 U.S.C. §§ 9601-9675 (2006). For CERCLA's origin story, see H.R. REP. NO. 96-1016, at 1016-21 (1980), *reprinted in* 1980 U.S.C.C.A.N. 6119, 6119-23.

95. Although CERCLA does not use the words "strictly liable," this standard has been read in judicially. *See Burlington N. & Santa Fe Ry. Co. v. United States*, 556 U.S. 599, 608 (2009).

96. Alexandra B. Klass, *From Reservoirs to Remediation: The Impact of CERCLA on Common Law Strict Liability Environmental Claims*, 39 WAKE FOREST L. REV. 903, 921-22 (2004). The definition of a "potentially responsible party" is laid out in 42 U.S.C. § 9607(a).

97. *See* 42 U.S.C. § 9601(14).

98. *Id.* § 9602(a).

99. *Id.* § 9601(14).

100. *See* James B. Brown & Glen C. Hansen, *Nuisance Law and Petroleum Underground Storage Tank Contamination: Plugging the Hole in the Statutes*, 21 ECOLOGY L.Q. 643, 649 (1994) (noting that the exclusion "bars many plaintiff landowners from recovering").

Under CERCLA, any party, public or private, may sue to recover costs associated with contamination,¹⁰¹ even for contamination that occurred before Congress enacted the statute.¹⁰² CERCLA supplies the EPA with three options for contamination response. First, the EPA can take immediate “removal” action when there is either a release or a threat of a release of a hazardous substance into the environment that presents a threat to the public health and welfare.¹⁰³ Second, the EPA may compel responsible parties to “remediate” the site, which is a more permanent treatment than less-demanding removal.¹⁰⁴ If the responsible parties fail to remediate, the EPA can abate the contamination itself then sue for cost recovery, plus civil penalties and damages.¹⁰⁵ Third, when the EPA cannot find any responsible party, it is permitted to clean up sites itself using a special trust fund called the Superfund.¹⁰⁶ Because remedial Superfund actions lack the urgency of removal actions, the EPA may undertake them only at sites it registers on a National Priorities List (NPL).¹⁰⁷ Even then, the EPA does not actively regulate most of the contaminated sites registered on the NPL.¹⁰⁸ That is in part because state and local government agencies dominate CERCLA enforcement.¹⁰⁹

101. Alexandra B. Klass & Elizabeth J. Wilson, *Climate Change and Carbon Sequestration: Assessing a Liability Regime for Long-Term Storage of Carbon Dioxide*, 58 EMORY L.J. 103, 128 (2008).

102. Kathleen Chandler Schmid, Student Article, *The Depletion of the Superfund and Natural Resource Damages*, 16 N.Y.U. ENVTL. L.J. 483, 500 (2008).

103. 42 U.S.C. § 9601(23); 300 C.F.R. § 300.415(b) (2012).

104. Compare 42 U.S.C. § 9601(23) (defining “removal” in terms of minimizing damage to the public health or welfare as a result of environmental threats), with *id.* § 9601(24) (defining “remedial action” as “those actions consistent with permanent remedy”).

105. Klass, *supra* note 96, at 922 (citing 42 U.S.C. § 9607(c)(3)).

106. Schmid, *supra* note 102, at 484.

107. 40 C.F.R. § 300.425(b)(1). The full NPL is at *id.* pt. 300, app. B. This Note primarily concerns urban gardens that are only mildly contaminated, and would thus not meet the NPL’s high threshold. For further discussion of the NPL, see U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-09-656, SUPERFUND: LITIGATION HAS DECREASED AND EPA NEEDS BETTER INFORMATION ON SITE CLEANUP AND COST ISSUES TO ESTIMATE FUTURE PROGRAM FUNDING REQUIREMENTS 12–15 (2009).

108. Ronald G. Aronovsky, *A Preemption Paradox: Preserving the Role of State Law in Private Cleanup Cost Disputes*, 16 N.Y.U. ENVTL. L.J. 225, 233 (2008). Commonly, federal agencies with jurisdiction will approve a state program enforcing the federal agency’s mandate. Will Reisinger et al., *Environmental Enforcement and the Limits of Cooperative Federalism: Will Courts Allow Citizen Suits to Pick up the Slack?*, 20 DUKE ENVTL. L. & POL’Y F. 1, 6–7

A private party, on the other hand, has only one CERCLA option if the EPA does not act: pay to clean up the site and sue the responsible parties directly for reimbursement.¹¹⁰ The current owner of contaminated land often qualifies as a potentially responsible party (PRP),¹¹¹ but one PRP may recover voluntary cleanup costs from other PRPs.¹¹² This is significant in the context of urban agriculture because gardeners can often be PRPs, yet will not be prohibited from suing other PRPs, including some former owners of the land.¹¹³

However, unlike a government entity, a private plaintiff cannot recover damages under CERCLA.¹¹⁴ To recover damages for harms suffered like personal injury or diminution in property value, a gardener will have to complement the strict liability CERCLA option with the common law.¹¹⁵

Many states have enacted their own environmental cleanup statutes emulating CERCLA.¹¹⁶ For example, the Minnesota Department of Agriculture and the Minnesota Pollution Control Agency enforce the Minnesota Environmental Response and Liability Act (MERLA).¹¹⁷ MERLA also imposes liability on past and present owners and operators of any facility where

(2010).

109. Aronovsky, *supra* note 108, at 233; David L. Markell, *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality*, 24 HARV. ENVTL. L. REV. 1, 32 (2000) ("States conduct roughly ninety percent of the inspections in this country, and, according to leading state officials, they bring approximately eighty to ninety percent of all enforcement actions.").

110. See 42 U.S.C. § 9607(a).

111. *Id.* § 9607(a)(1). This is subject to an exception for bona fide prospective purchasers. *Id.* §§ 9601(40), 9607(r)(1).

112. *United States v. Atl. Research Corp.*, 551 U.S. 128, 141 (2007).

113. See 42 U.S.C. § 9607(a)(1)–(2) (identifying current and former owners and operators as PRPs).

114. See *id.* § 9607(a)(4) (allowing, among other things, the recovery of response costs).

115. See *supra* Part I.D.1 (discussing common law claims for redressing soil contamination).

116. *Johnson Controls, Inc. v. Emp'rs Ins. of Wausau*, 665 N.W.2d 257, 263 n.2 (Wis. 2003) ("Following the implementation of CERCLA, state legislatures enacted similar legislation that would apply to hazardous waste identified under the federal program as well as other substances that other states saw the need to control."); see Catherine J. LaCroix, *Urban Agriculture and Other Green Uses: Remaking the Shrinking City*, 42 URB. LAW. 225, 278–80 (2010) (explicating some differences between federal and state cleanup legislations). A complete listing of state hazardous substance cleanup laws is in 57 AM. JUR. TRIALS § 40 (2011).

117. MINN. STAT. §§ 115B.01–.20 (2012).

hazardous substances were located, transporters of hazardous substances to a facility, and generators of hazardous waste.¹¹⁸ Moreover, a responsible party is strictly liable for injury or *loss of use* to real or personal property, including past or future profits and all damages for death, personal injury, or disease,¹¹⁹ which is not available to litigants availing themselves of CERCLA.¹²⁰ Surprisingly, a few cities have even enacted Superfund laws of their own, as did Lodi, California,¹²¹ a city of only about 63,000.¹²²

E. MANY STATES MAINTAIN HAZARDOUS SUBSTANCE FUNDS TO REIMBURSE PRIVATE PARTIES FOR CERTAIN SPECIFIC TYPES OF ENVIRONMENTAL CONTAMINATION

Many states have created hazardous substance reimbursement funds to help private parties address certain well-known contaminants or to help clean up sites for a specified use. Unlike the Superfund, which reimburses only the federal government for cleaning up contaminated sites, many state hazardous substance funds provide compensation to private parties.

One such scheme is Minnesota's Petrofund.¹²³ The program's managing Petroleum Tank Release Compensation

118. *Id.* § 115B.03, subdiv. 1.

119. *Id.* § 115B.05.

120. See Klass, *supra* note 96, at 923 (citing 42 U.S.C. § 9607(a)(4) (2006)) ("Private parties are limited to recovering 'response' costs or monies toward a cleanup.").

121. LODI, CAL., CODE OF ORDINANCES tit. 8, ch. 8.20 (1995); see also *Fireman's Fund Ins. Co. v. City of Lodi, Cal.*, 302 F.3d 928, 957–58 (9th Cir. 2002) (finding no preemption by duplication between CERCLA and Lodi's ordinance).

122. 2012 CITY POPULATION RANKINGS, CAL. DEP'T OF FIN. (May 2012), available at http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/documents/Rankcities_2012.xls.

123. The Petrofund is regulated by the Petroleum Tank Release Cleanup Act, MINN. STAT. §§ 115C.01–.13. Currently, thirty-six other states have funds to reimburse private parties for cleaning up contamination from petroleum storage tanks. E-mail from Joel Fischer, Dir., Petrofund, Minn. Dep't of Commerce, to author (Mar. 22, 2012, 10:23 CST) (on file with author); see, e.g., Oil Contaminated Site Environmental Cleanup Fund, MD. CODE ANN., ENVIR. §§ 4-701 to -708 (LexisNexis 2012); Cleanup of Discharged Petroleum, NEV. REV. STAT. §§ 590.700–.920 (LexisNexis 2012) (Nevada's Petroleum Fund); Oil Discharge, Disposal and Cleanup Fund, Fuel Oil Discharge Cleanup Fund, Motor Oil Discharge Cleanup Fund, and Gasoline Remediation & Elimination of Ethers Fund, N.H. REV. STAT. ANN. §§ 146-D to -G (LexisNexis 2012); Virginia Petroleum Storage Tank Fund, VA. CODE ANN. §§ 62.1-44.34:10 to :13

Board refunds up to ninety percent of the reasonable corrective costs that parties incur in remediating a petroleum spill from an underground storage tank, with a cap of \$1 million for a single release.¹²⁴ Eligible applicants are diverse, encompassing owners of petroleum tanks, homeowners, school districts, government agencies, and others.¹²⁵ Parties whose insurance covers cleanup costs are ineligible for Petrofund reimbursements.¹²⁶ As of 2011, the Petrofund has reimbursed over \$400 million in petroleum cleanup costs.¹²⁷

Minnesota also administers a program called the Agricultural Chemical Response and Reimbursement Account (ACRRA).¹²⁸ ACRRA reimburses private parties who clean up agricultural chemical contamination, such as that from pesticides or fertilizer.¹²⁹ ACRRA covers eighty percent of cleanup costs greater than \$1000, and up to \$350,000.¹³⁰ Registration and license surcharges levied directly on pesticide and fertilizer distributors and dealers provide ACRRA with funding.¹³¹ ACRRA is unique because, according to one Minnesota Department of Agriculture official, it is “the only state agriculture agency in the country that has [S]uperfund authority and one of a very few that has . . . funds that provide reimbursement for site remediation.”¹³² ACRRA only reimburses parties if the Minnesota Department of Agriculture requests and pre-approves the work.¹³³ So, a gardener that remediated soil laden

(2012). Although other states have similar programs, this Note primarily cites Minnesota's for the sake of a consistent example.

124. MINN. STAT. § 115C.09, subdiv. 3(a); MINN. R. 2890.4500, subpt. 3 (2012).

125. *What We Do: Petrofund*, MINN. DEP'T OF COMMERCE, <http://mn.gov/commerce/topics/Petrofund/What-We-Do-Petrofund.jsp> (last visited Mar. 11, 2013); see MINN. STAT. § 115C.09, subdivs. 3a–3b (restricting program eligibility to applicants that were not a responsible party).

126. See *In re Application of Crown CoCo, Inc.*, 458 N.W.2d 132, 138 (Minn. Ct. App. 1990).

127. Stephanie Dickrell, *Sitting on a Spill*, ST. CLOUD TIMES (Minn.), Dec. 13, 2011, at A1, available at 2011 WLNR 25666167.

128. MINN. STAT. § 18E.03 (2012).

129. *Agricultural Chemical Response & Reimbursement Account*, MINN. DEP'T OF AGRIC., <http://www.mda.state.mn.us/grants/disaster/acrra.aspx> (last visited Mar. 11, 2013) [hereinafter *About ACRRA*].

130. MINN. STAT. § 18E.04, subdiv. 4(a).

131. *Id.* § 18E.03, subdivs. 3(c), 4.

132. E-mail from Greg Buzicky, Dir., Pesticide & Fertilizer Mgmt. Div., Minn. Dep't of Agric., to author (June 2, 2011, 14:49 CST) (on file with author).

133. MINN. POLLUTION CONTROL AGENCY, VOLUNTARY INVESTIGATION AND CLEANUP PROGRAM, GUIDANCE DOCUMENT #21, at 6 (Feb. 1998), available at

with toxic pesticides or fertilizers without the Department of Agriculture's imprimatur ex ante is ineligible for reimbursement.¹³⁴ Other niche property uses, such as dry cleaning, also have their own hazardous substance reimbursement funds available for soil contamination.¹³⁵

These reimbursement funds are often governed by a board with specialized expertise in the relevant subject matter. For instance, the ACRRA board comprises five members: a representative of agricultural chemical registrants, a representative of manufacturers and dealers, a representative of farmers, the Department of Agriculture Commissioner, and the Department of Commerce Commissioner.¹³⁶ By contrast, Maryland's Waste Management Administration runs the state Oil Contaminated Site Environmental Cleanup Fund without a special oversight board.¹³⁷

Special assessments are a common vehicle for funding such trusts. Ohio's Petroleum Underground Storage Tank Release Compensation Board assesses owners and operators of underground storage tanks, using that money solely for the correction of pollution problems from underground storage tanks.¹³⁸ Because the Board covers response costs, Ohio's fund, called the Petroleum Underground Storage Tank Release Financial Assurance Fund, has been analogized to an insurance policy.¹³⁹ Ohio's fund is supplemented by the interest earned on it,¹⁴⁰ and by appropriations from the general revenue fund.¹⁴¹ Others, like Minnesota's Petrofund, also receive funding from wholesale

<http://www.pca.state.mn.us/index.php/view-document.html?gid=3344>.

134. *See id.*

135. *See* Dry Cleaner Environmental Response and Reimbursement Law, MINN. STAT. §§ 115B.47–.51 (2012); Drycleaner's Environmental Response Act, TENN. CODE ANN. §§ 68-217-101 to -113 (West 2012).

136. MINN. STAT. § 18E.05, subdiv. 1(a) (specifying the composition of the Petrofund Board); *see also* NEV. REV. STAT. § 590.820 (LexisNexis 2012) (noting that the "Board to Review Claims" consists of, among others, a "representative" from both "refiners of petroleum" and "independent retailers of petroleum").

137. MD. DEP'T OF THE ENV'T, REPORT ON THE STATUS OF THE OIL CONTAMINATED SITE ENVIRONMENTAL CLEANUP FUND 1 (Jan. 1, 2009), http://www.mde.maryland.gov/assets/document/OilControl/15th_Annual_Cleanup_Report_FY08.pdf; *see* MD. CODE ANN., ENVIR. §§ 4-701 to -708 (LexisNexis 2012).

138. OHIO REV. CODE ANN. §§ 3737.87–.98 (LexisNexis 2012).

139. *Amoco Oil Co. v. Petroleum Underground Storage Tank Release Comp. Bd.*, 733 N.E.2d 592, 594 (Ohio 2000).

140. OHIO REV. CODE ANN. § 3737.91(A)(2).

141. *Id.* § 3737.91(A)(3).

gasoline taxes, a cost often passed on to the consumer.¹⁴² The Petrofund tax is collected only when the fund balance drops to a certain amount.¹⁴³

Some states maintain dual schemes for state response and for private recompense. California operates what are essentially two separate cleanup funds: the Hazardous Substance Account¹⁴⁴ and a compensatory hazardous substance cleanup fund.¹⁴⁵ The former provides for state response and remedial actions,¹⁴⁶ while the latter directly reimburses private parties.¹⁴⁷ California reimburses private parties not just for the costs of out-of-pocket cleanup, but also for medical expenses and certain wage and income losses.¹⁴⁸ Ohio, on the other hand, pays third parties out of its fund for bodily injury and property damage resulting from petroleum releases.¹⁴⁹

II. EXISTING LEGAL REMEDIES FOR SOIL CONTAMINATION IN URBAN AGRICULTURE ARE CUMBERSOME, EXPENSIVE, AND UNDULY TIME-CONSUMING

Because no comprehensive legal regime covers soil contamination in urban agriculture, there are many ways in which the problem is wholly or partially unaddressed. This Part examines the imperfections of available options and how they can discourage individuals from engaging in urban agriculture. The lack of funding solutions is a major problem in reducing soil contamination to a level where gardening becomes viable in terms of time and money. Litigation can be time-consuming,

142. Dean Rebuffoni, *Petroleum Tank Cleanup Effort Faces Shortage of \$34 Million*, STAR TRIB. (Minneapolis, Minn.), Jan. 28, 1993, at 1A, available at 1993 WLNR 3954083.

143. THE MINNESOTA PETROLEUM TANK RELEASE CLEANUP FUND, MINN. DEPT OF COMMERCE 2 (Mar. 2003), available at http://www.state.mn.us/mn/externalDocs/Commerce/Publications_110402020002_PetroBrochure2.pdf; see Meeting Minutes 4, Petroleum Tank Release Comp. Bd. (May 12, 2010), available at <http://mn.gov/commerce/images/PFMinutes05-12-10.pdf> (noting that the two cent tax would be imposed for fiscal year 2011 because the Petrofund treasury had dropped below \$4 million).

144. CAL. HEALTH & SAFETY CODE §§ 25300–25395.45 (West 2012). This is essentially the California state equivalent of CERCLA. See *supra* Part I.D.2.

145. CAL. HEALTH & SAFETY CODE §§ 25370–25382.

146. *Id.* § 25363.

147. *Id.* § 25375.

148. *Id.*

149. OHIO REV. CODE ANN. § 3737.92(A)(3) (LexisNexis 2012).

expensive, and ill-fitted for the particulars of urban agriculture, and thus untenable for the average urban gardener. The EPA's enforcement discretion creates uncertainty as to whether the government will act, and the Agency will almost certainly ignore properties that are only mildly contaminated.

A. DIFFICULTIES IN SELF-REMEDiation PREVENT MANY PRIVATE PARTIES FROM BEING FULLY COMPENSATED FOR THEIR INJURIES

When gardeners want to grow produce in their own backyards, they might address potential contamination themselves. However, roadblocks await these enterprising locavores. Although soil analysis testing is available, it can be expensive and generally will not test for all possible harmful compounds.¹⁵⁰ The challenges of detecting and assessing contamination are succeeded by the problems of fixing it. For example, raised beds, a cheaper remediation option, prevent contaminants from entering produce through the roots¹⁵¹ but do nothing to prevent inhalation of soil dust.¹⁵² Phytoremediation removes soil contamination,¹⁵³ but gardeners must properly dispose of the plants used during this process, as the plants themselves will become contaminated.¹⁵⁴ Of course, no remediation method will completely *rid* urban environments of all pollution. Soil remediation endeavors to *mitigate* unhealthy contamination, and viewed from that perspective it often succeeds.

Effectiveness aside, all of these remediation methods cost money. Combined with the other, non-remediative costs of setting up a garden,¹⁵⁵ the expense of proper remediation may completely foreclose the garden's establishment.

150. See Turner, *supra* note 38, at 5–6 (discussing testing programs in the four to twenty dollar range).

151. See Mogk et al., *supra* note 6, at 1536–37.

152. Josh Beniston & Rattan Lal, *Improving Soil Quality for Urban Agriculture in the North Central U.S.*, in CARBON SEQUESTRATION IN URBAN ECOSYSTEMS 302 (Rattan Lal & Bruce Augustin eds., 2012).

153. See National Oil and Hazardous Substance Pollution Contingency Plan; National Priorities List Update, 64 Fed. Reg. 51496-02, 51498 (Sept. 23, 1999) (to be codified at 40 C.F.R. pt. 300).

154. See SUTHAN S. SUTHERSAN, REMEDIATION ENGINEERING: DESIGN CONCEPTS 263 (Suthan S. Suthersan ed., 1999) (acknowledging the limitations of phytoremediation and listing the “[e]valuation and development of proper handling and disposal methods for the harvested . . . plants” as a “knowledge gap”).

155. See Mogk et al., *supra* note 6, at 1552 (noting the use of tax incentives and abatements in Buffalo, New York to defray “the burden of high start-up

The major shortcoming of government grants is that they are not universally available, and they are often available only for properties more severely contaminated than the average residential property.¹⁵⁶ Governments usually issue grants only in specific situations, and usually only to nonprofits and governments.¹⁵⁷ Even with the right people or organizations applying, a proposed urban garden site and use are unlikely to qualify in this competitive process.¹⁵⁸ The EPA, for one, maintains strict conditions for eligibility that are focused on redevelopment.¹⁵⁹ As there are not enough funds for the EPA to respond to all eligible properties, only the most severely contaminated sites received funding based on a competitive ranking system.¹⁶⁰ Grants can be unreliable because there is no guarantee the funding will continue. Unlike an established, statutory program, grant funding distributed by administrative agencies or private organizations can run out more easily and on shorter notice, especially with more parties competing for the money.¹⁶¹

Without grants, the individual will frequently be ultimately responsible for remediation costs. Placing the remediation onus on individual gardeners or organizations makes gardening less accessible to the low-income communities which are most likely to have soil contamination.¹⁶² These low-income communities are in the greatest need of healthy, low-cost foods.¹⁶³

costs” of urban agriculture).

156. See, e.g., *Minnesota Targeted Brownfield Assessment Program*, *supra* note 68.

157. See, e.g., *FY13 Guidelines for Brownfields Assessment Grants*, *supra* note 65; *FY13 Guidelines for Brownfields Cleanup Grants*, *supra* note 63.

158. See 45 TEXAS PRACTICE SERIES, ENVIRONMENTAL LAW § 13.2(b)(1) (2d ed. 2012) (stating that “grants are competitive” and listing the factors the EPA considers during its comprehensive review of proposals).

159. 42 U.S.C. § 9604(k)(3)(C) (2006).

160. See *id.* § 9604(k)(5)(C); *cf. infra* note 208 and accompanying text (discussing EPA’s enforcement discretion).

161. See Vinnie Bevivino, *How Grant-Funded Urban Farming Can Teach Us, but Not Feed Us*, SEED & CYCLE, <http://www.seedandcycle.com/articles/grant-funded-food-security> (last visited Mar. 11, 2013) (“[T]he pool for funding is only getting smaller. We can fight for additional funding for urban farms, but a grant-funded food system can expand only as fast as the funders.”).

162. See Madeline Gallo, *From Wood Treatment to Unequal Treatment: The Story of the St. Regis Superfund Site*, 29 LAW & INEQ. 175, 197 (2011) (“Environmental justice communities are not likely to have the funds necessary to complete a remediation of a Superfund site.”).

163. See REBECCA FLOURNOY, POLICYLINK, HEALTHY FOOD, HEALTHY COMMUNITIES 6 (2011), available at http://www.policylink.org/atl/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7D/HFHC_FINAL.PDF (“For decades, low-income urban . . . communities have faced limited opportunities to

B. LITIGATION IS FAR TOO DIFFICULT AND EXPENSIVE FOR MOST URBAN GARDENERS TO REALISTICALLY CONSIDER

Private parties may also consider suing the prior owners or the parties responsible for the contamination in order to facilitate soil remediation. However, this solution is ineffective because common law tort and contract theories fail to respond adequately to the issue of soil contamination. There are problems with both the causes of action themselves, such as the difficulty in proving causation, and the high costs inherent in litigation.

1. Many Particular Causes of Action Do Not Lend Themselves Well to an Urban Gardening Context

No judicially cognizable cause of action specifically addresses soil contamination in the context of urban agriculture. Still, urban gardeners may sue on theories of nuisance, trespass, negligence, strict liability, or contract, just like any non-gardening party harmed by environmental contamination.¹⁶⁴

But there are flaws with the application of these causes of action to urban agriculture in particular. For instance, some of these causes of action, like fraudulent concealment, require scienter.¹⁶⁵ A buyer may laudably wish to use the land to cultivate a small garden but will still need to show that the seller concealed or misrepresented that land's contaminated state in the transaction. Given the standard polluted urban environment in which contamination is more or less uniformly distributed between properties, it is unlikely that a court will find a seller liable for not telling the buyer that the property is slightly contaminated—most urban sellers probably do not realize that their soil is unsuitable for agriculture. To be liable, a seller would probably have to have specifically known of the soil contamination after conducting a soil assessment.¹⁶⁶

The much larger problem with the environmental torts is proving causation. Normally, a trier of fact can infer causation when the plaintiff was uninjured before an accident, but suf-

purchase . . . fresh, healthy, affordable foods.”).

164. See *Quarterman v. Kefauver*, 64 Cal. Rptr. 2d 741, 743 (Cal. Ct. App. 1997); *supra* Part I.D.

165. See, e.g., *Nicolet, Inc. v. Nutt*, 525 A.2d 146, 149 (Del. 1987); RESTATEMENT (FIRST) OF TORTS § 550 (1938).

166. See, e.g., *Stevenson v. Baum*, 75 Cal. Rptr. 2d 904, 907 (Cal. Ct. App. 1998) (stating that a fraudulent concealment claim requires a seller's knowledge of a material fact that is unknown to the buyer or not within the buyer's “reach of diligent attention and observation”).

ferred from an injury afterward.¹⁶⁷ In toxic injury cases, courts generally prohibit these types of inferences because toxic exposure is invisible, its effects are delayed, and alternative causes are always possibilities.¹⁶⁸ After all, different people exposed to the same toxin will react differently over time.¹⁶⁹ Specifically, different people may experience different latency periods, which wrecks statutes of limitations problems.¹⁷⁰

In many states, plaintiffs have no viable cause of action when they buy property years after the contamination occurred. Jurisdictions diverge on whether the statute of limitations begins running when the *conduct* ceases¹⁷¹ or when the *injury* ceases.¹⁷² Even under the latter, more lenient standard, the limitations period may cease tolling once a property owner acquires actual or constructive knowledge that there is soil contamination, even though the damage persists.¹⁷³

To be fair, urban gardeners may succeed without precisely tailored remedies.¹⁷⁴ Even after the advent of statutory envi-

167. Gold, *supra* note 46, at 1511.

168. *Id.* at 1511–12. These plaintiffs usually must prove both general and specific causation. *Id.* at 1512.

169. Sexton et al., *supra* note 46, at 13.

170. Troyen A. Brennan, *Environmental Torts*, 46 VAND. L. REV. 1, 5 n.11 (1993) (“In combination, issues of exposure, causation, and latency periods make environmental torts extraordinarily burdensome.”).

171. *See, e.g.*, FDIC v. Laidlaw Transit, 21 P.3d 344, 356 (Alaska 2001) (“[S]ince [the defendants-contaminators] have lost their connection to the land, they cannot be characterized as maintaining an ongoing nuisance.”); Alston v. Hormel Foods Corp., 730 N.W.2d 376 (Neb. 2007) (holding that continuing ill effects of prior tortious acts and the failure to right a wrong committed outside the statute of limitations are insufficient to establish a continuing tort).

172. *See, e.g.*, State *ex rel.* Smith v. Kermit Lumber & Pressure Treating Co., 488 S.E.2d 901, 925 (W. Va. 1997) (“As long as the arsenic remains on the Kermit Lumber business site in amounts above the regulatory limits and as long as the arsenic is flowing into the Tug Fork River, the harm or nuisance continues and thus, is a continuing (or temporary) nuisance.”); RESTATEMENT (SECOND) OF TORTS § 161 cmt. b (1965) (“The actor’s failure to remove from land in the possession of another a . . . thing which he has tortiously erected or placed on the land constitutes a continuing trespass for the entire time during which the thing is wrongfully on the land . . .”).

173. *See, e.g.*, Hogg v. Chevron USA, Inc., 45 So. 3d 991, 994–95, 1001, 1007 (La. 2010) (dismissing a continuing tort suit because the Louisiana Department of Environmental Quality had informed plaintiffs of environmental contamination more than one year before the suit commenced).

174. The common law is flexible; harms unimaginable 400 years ago may still be remedied today with the tools fashioned at that time. *Compare, e.g.*, Aldred’s Case, (1611) 77 Eng. Rep. 816 (K.B.), 9 Co. Rep. 57 b (successful nuisance action where pig sty emitted noxious fumes), *with* Lesh v. Chandler, 944 N.E.2d 942, 952 (Ind. Ct. App. 2011) (successful nuisance action where neigh-

ronmental causes of action, courts have seen more common law strict liability cases.¹⁷⁵

2. Few Urban Gardeners Will Want to Experience the Hassle and Cost of Litigation

The claims underlying litigation may be less an issue than the pursuit of litigation itself. Litigation has many significant and well-documented disadvantages.¹⁷⁶ First, suing a prior owner or landlord for knowingly possessing contaminated land compromises a plaintiff's privacy in a way that self-remediation does not. A gardener may lose and have to pay the winning opponent's expenses and costs. Even if the plaintiff "wins," the damages awarded may be much less than hoped for, and insufficient to cover the cost of remediating the soil. The entire process may take years, which can frustrate a community gardener who wants to simply,¹⁷⁷ quickly,¹⁷⁸ and cheaply¹⁷⁹ begin growing and consuming homegrown food. Litigation is often more expensive than testing and remediating the soil for one's self, especially when dealing with small urban residential plots. For instance, in the California case discussed earlier where the court awarded damages against a defendant for contaminating

bors blasted music and shined spotlights on plaintiffs' home).

175. Klass, *supra* note 96, at 935. Professor Klass also identifies the plaintiffs' burden in demonstrating that the risks of the polluting activity cannot reasonably be diminished as an impediment to strict liability in environmental tort actions. *Id.* (citing GERALD W. BOSTON & M. STUART MADDEN, LAW OF ENVIRONMENTAL AND TOXIC TORTS 122 (2d ed. 2001)).

176. While many of the disadvantages of litigation are rather obvious, the subject is meticulously treated in ROBERT C. PRATHER, SR. & JOE L. COPE, TEXAS PRACTICE GUIDE: ALTERNATIVE DISPUTE RESOLUTION §§ 5:22–5:29 (2012).

177. See Kristen Choo, *Plowing Over: Can Urban Farming Save Detroit and Other Declining Cities? Will the Law Allow It?*, 97 A.B.A. J. 42, 70 (2011) (imagining that a prospective gardener might look at the complicated urban agriculture ordinance in Kansas City, Missouri and say, "This is so complicated you need a lawyer to figure it out. And I just want to have a garden.").

178. See *Quarterman v. Kefauver*, 64 Cal. Rptr. 2d 741, 741–43 (Cal. Ct. App. 1997) (adjudicating a case that spanned five years from when the disagreement first arose until the issuance of an appellate opinion); JIM NOLLMAN, WHY WE GARDEN: CULTIVATING A SENSE OF PLACE 39 (2005) ("Twenty-five years is an incredible commitment to a [tree] garden. Most people are too busy to care. They may not own their own house, and a twenty-five-year allegiance to a stranger's property seems unrealistic.").

179. Since one reason that people grow their own gardens is to save money, "savings on vegetables are a relevant factor in making the decision to garden and should be included in any decision model." James R. Blaylock & Anthony E. Gallo, *Modeling the Decision to Produce Vegetables at Home*, 65 AM. J. AGRIC. ECON. 722, 722 (1983).

an urban garden, the plaintiffs claimed over \$420,000 in attorney fees.¹⁸⁰

Resort to the judicial system is also problematic for the community at large.¹⁸¹ A sizeable percentage of litigation costs, especially with CERCLA, go to inefficient transaction costs—money that is not going toward establishing or maintaining community gardens.¹⁸² If owners of small, mildly contaminated plots are deterred from farming, they and their community are deprived of many of the practice's benefits, including creating jobs and improving the health of local residents.¹⁸³ These observations, of course, are completely independent of any assessment of the gardener's claim. Rather, these problems are intrinsic in litigation and are the necessary cost of entering the courthouse door.

Concrete numbers illustrate the absurdity that a gardener facing mild contamination might sue to set up an urban garden or be compensated for personal injuries. Take a gardener that wants to sue in, for example, San Francisco Superior Court. He must pay for filing fees (\$355),¹⁸⁴ motion filing fees (\$60 each),¹⁸⁵ depositions (a full day can cost over \$1000 in reporter's fees),¹⁸⁶ experts (which can cost around \$1000 per day of testimony),¹⁸⁷

180. *Quarterman*, 64 Cal. Rptr. 2d at 743.

181. As the U.S. Court of Appeals for the First Circuit has written in approving a CERCLA consent decree, "[t]he reality is that, all too often, litigation is a cost-ineffective alternative which can squander valuable resources, public as well as private." *United States v. Cannons Eng'g Corp.*, 899 F.2d 79, 90 (1st Cir. 1990).

182. STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 18 (1993) (citing a report that in Superfund responses, ninety percent of insurance expenditures and twenty percent of firm expenditures went to legal fees and other transaction costs). One U.S. Representative derisively described CERCLA as a "welfare and relief act for lawyers." 126 CONG. REC. H31,970 (daily ed. Dec. 3, 1980) (statement of Rep. Harsha).

183. See Mogk et al., *supra* note 6, at 1523 ("Urban agriculture . . . serves a local demand for wholesome, inexpensive food, while providing residents with jobs, a method for eliminating neighborhood blight and a greater feeling of self-worth.").

184. CAL. GOV'T CODE § 70611 (West Supp. 2013).

185. *Id.* § 70617(a).

186. WILLIAM F. RYLAARSDAM ET AL., *CALIFORNIA PRACTICE GUIDE, FEDERAL CIVIL PROCEDURE BEFORE TRIAL* ch. 8E-1, § 8:418; see, e.g., *Lira v. Garner-Easter*, No. CIV S-05-2512GEBKJMP, 2008 WL 3974731, at *1 (E.D. Cal. Aug. 22, 2008) (\$1036.25 in deposition costs from court reporters and attorneys' fees); accord, e.g., *Semke v. Enid Auto. Dealers Ass'n*, 52 F.R.D. 518, 520 (W.D. Okla. 1971) (\$1795.20 in deposition costs).

187. See, e.g., Bart Baggett, *Forensic Documentation Fee Schedule*, HANDWRITING SERVICES INT'L (May 23, 2012), <http://handwritingexpertusa.com/cv/>

appeal filing fees (ranging from \$330 to \$655),¹⁸⁸ and any other miscellaneous costs like postage and travel. Federal court is no cheaper; it costs around \$15,000 to litigate a federal civil suit, exclusive of damages won.¹⁸⁹ Using the rough formula of one dollar of investment yielding six dollars of benefits,¹⁹⁰ a gardener must invest at least \$3000 in his garden to recoup the costs of the average federal civil lawsuit.¹⁹¹

Class actions would seem to circumvent many of these problems with economies of scale.¹⁹² However, the highly variable nature of soil contaminants can make establishing commonality difficult.¹⁹³ But even where courts certify these classes, the cases are incredibly complex, and require proof of individual causation.¹⁹⁴ Prospective class members often have difficulty retaining counsel¹⁹⁵ because class action lawyers frequently require contingency fees and may be very reluctant to take the case if the total claims for mildly contaminated gardens are not large enough.¹⁹⁶ Large monetary settlements may not net each individual class member enough money to establish a clean garden or make it seem worth their while.¹⁹⁷ Finally, class actions require a lead plaintiff to spearhead litigation

BartBaggett_Fee%20Schedule.pdf (charging \$1200 per day this expert testifies in court, exclusive of travel and meal costs).

188. CAL. GOV'T CODE § 70621; *id.* §§ 68926, 68926.1(b).

189. EMERY G. LEE III & THOMAS E. WILLGING, FED. JUDICIAL CTR., PRELIMINARY REPORT TO THE JUDICIAL CONFERENCE ADVISORY COMMITTEE ON CIVIL RULES 35 tbl.4 (2009), *available at* [http://www.fjc.gov/public/pdf.nsf/lookup/dissurv1.pdf/\\$file/dissurv1.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/dissurv1.pdf/$file/dissurv1.pdf).

190. Mogk et al., *supra* note 6, at 1531.

191. *See* LEE III & WILLGING, *supra* note 189, at 35 tbl.4.

192. Class actions can be used in environmental tort cases. *See* 19 A.L.R. FED. 2d 303 (2007).

193. *See* FED. R. CIV. P. 23(a), (b)(3).

194. *See* Martin v. Shell Oil Co., 198 F.R.D. 580, 592 (D. Conn. 2000) (denying class certification where the court was not satisfied that the “common issues of law and fact [we]re sufficient to overcome the extensive individualized proof of, *inter alia*, breach, causation and trespass that is likely to be required”).

195. *See* Jeanne Marie Zokovitch Paben, *Approaches to Environmental Justice: A Case Study of One Community's Victory*, 20 S. CAL. REV. L. & SOC. JUST. 235, 250 (2011) (explaining the difficulties of obtaining counsel for environmental injustice clients in general).

196. *Id.* at 251; Brennan, *supra* note 170, at 4 (“If the compensation available through contingency fees from personal injury suits is insufficient, attorneys will pursue other kinds of cases.”).

197. Paben, *supra* note 195, at 251.

efforts;¹⁹⁸ the motivation problem of pursuing claims for small urban gardens means plaintiffs will be hard to find.¹⁹⁹

3. Federal and State Hazardous Substance Remediation Statutes Are Often No Better

Community gardeners that do not wish to sue responsible parties for damages under the common law can resort to environmental cleanup statutes that allow for recovery of response costs. An advantage of CERCLA is that a plaintiff does not need to show actual physical injury. Rather, an aggrieved party needs to demonstrate only that a hazardous substance was “released,” within the statutory definition,²⁰⁰ and that the threat of release necessitated the incurrence of response costs.²⁰¹ In contrast, many torts require an actual injury to person or property.²⁰² The forms of relief offered by torts and environmental statutes also differ.²⁰³ Whereas a court may issue an injunction in a nuisance action, CERCLA does not allow private parties to seek an affirmative injunction to force remediation.²⁰⁴

But CERCLA has significant shortcomings for mildly contaminated urban gardens. CERCLA cleanups involve extensive contamination and are expensive, averaging around \$30 mil-

198. See Elizabeth Chamblee Burch, *Optimal Lead Plaintiffs*, 64 VAND. L. REV. 1109, 1177 (2011) (noting lead plaintiffs’ “private obligations and public aspirations”).

199. See *id.* at 1110; cf. NOLLMAN, *supra* note 178, at 39.

200. See 42 U.S.C. §§ 9601(22), 9607(a) (2006).

201. *Id.* § 9607(a)(4)(B). The plaintiff must also prove two other elements to establish a prima facie case: the site is a facility, and the defendant is a PRP. Arnold W. Reitze, Jr. et al., *Cost Recovery by Private Parties Under CERCLA: Planning a Response Action for Maximum Recovery*, 27 TULSA L.J. 365, 382–83 (1992).

202. See, e.g., *Paz v. Brush Engineered Materials, Inc.*, 949 So. 2d 1, 5 (Miss. 2007) (“Exposure to a potentially harmful substance does not in itself constitute a personal injury. Persons who allege only exposure are asking for a remedy without a wrong.” (citation omitted) (internal quotation marks omitted)); Mark Latham et al., *The Intersection of Tort and Environmental Law: Where the Twains Should Meet and Depart*, 80 FORDHAM L. REV. 737, 764–65 (2011) (“A fundamental principle of tort law is that there must be an actual physical injury to person or property, or at least actual serious emotional harm, for a cause of action to exist at common law.” (footnote omitted)). *But see* Meyer *ex rel.* Coplin v. Fluor Corp., 220 S.W.3d 712, 717 (Mo. 2007) (en banc) (allowing recovery for medical monitoring even where no physical injury was present).

203. Alexandra B. Klass, *Common Law and Federalism in the Age of the Regulatory State*, 92 IOWA L. REV. 545, 583 (2007).

204. *Id.* at 583 n.214.

lion.²⁰⁵ The cleanups are cumbersome²⁰⁶ and time-intensive, entailing lengthy procedures that drag the entire process out an average of twelve years.²⁰⁷ Because the EPA has enforcement discretion, it typically deals with only the most severely impacted sites,²⁰⁸ even though it theoretically could reach any contaminated site under CERCLA.²⁰⁹ This EPA policy effectively forecloses the possibility of pursuing cost recovery actions against several categories of parties.²¹⁰ Many state environmental agencies exercise similar discretion, including the Minnesota Pollution Control Agency under MERLA,²¹¹ although not all states all the time.²¹² Besides effectively ignoring mildly contaminated properties, enforcement discretion is troublesome because of its susceptibility to untoward political influence.²¹³

205. Scott E. Blair, *Toxic Assets: The EPA's Settlement of CERCLA Claims in Bankruptcy*, 86 N.Y.U. L. REV. 1941, 1946 (2011) (citing RICHARD C. PORTER, *THE ECONOMICS OF WASTE* 219 (2002)).

206. Stefanie Gitler, *Settling the Tradeoffs Between Voluntary Cleanup of Contaminated Sites and Cooperation with the Government Under CERCLA*, 35 *ECOLOGY L.Q.* 337, 357 (2008) (describing the EPA's internal processes for identifying sites impacted enough to warrant remediation).

207. Blair, *supra* note 205, at 1946; see also David Rosenblatt, *When Does a Superfund Cleanup "End"?*, *AM. COLL. OF ENVTL. LAWYERS* (Apr. 4, 2011), <http://www.acoel.org/post/2011/04/04/When-Does-a-Superfund-Cleanup-End.aspx> (noting that EPA Guidance documents usually do not specify when long-term operation and maintenance may cease, and enumerating the risks and costs associated with such uncertainty).

208. Clifford Rechtschaffen, *Promoting Pragmatic Risk Regulation: Is Enforcement Discretion the Answer?*, 52 *U. KAN. L. REV.* 1327, 1342 (2004); see also Fortney, *supra* note 7, at 1877 n.119 (reviewing EPA data to compare the number of sites subject to CERCLA application with the number of sites on the National Priorities List that qualifies sites for Superfund money).

209. Fortney, *supra* note 7, at 1865.

210. Rechtschaffen, *supra* note 208, at 1342; see *Brownfields: Lessons from the Field: Hearing Before the H. Subcomm. on Water Res. and Env't of the H. Comm. on Transp. and Infrastructure*, 107th Cong. 54 (2001) ("Using Superfund to clean up these sites is like using a bulldozer to build a sandcastle." (statement of R. Bruce Josten, Executive Vice President, Gov't Affairs, U.S. Chamber of Commerce)).

211. MINN. STAT. § 115B.17 *passim* (2000) (stating that the agency "may" take some action); ELIZABETH GLASS GELTMAN, *RECYCLING LAND: UNDERSTANDING THE LEGAL LANDSCAPE OF BROWNFIELD DEVELOPMENT* 222 n.170 (2000).

212. For instance, the relevant Colorado statute *requires* state authorities to respond to emergency spills. James P. Young, *Expanding State Initiation and Enforcement Under Superfund*, 57 *U. CHI. L. REV.* 985, 994 (1990).

213. Blair, *supra* note 205, at 1949 & n.41 (citing Dorothy M. Daley & David F. Layton, *Policy Implementation and the Environmental Protection Agency: What Factors Influence Remediation at Superfund Sites?*, 32 *POLY STUD. J.* 375, 387 (2004) ("Sites are systematically more likely to reach construction

Furthermore, parties can recover only the costs of cleanup under CERCLA.²¹⁴ Urban gardeners will need to supplement CERCLA actions with state law tort claims in order to recover damages associated with diminution in property value, lost profits, lost rents, personal injury, or punitive damages.²¹⁵ Some state CERCLA analogues allow plaintiffs to recover attorney's fees in a successful action.²¹⁶ However, a plaintiff must front the money to pursue a lawsuit that might not even succeed. Further, Washington advises its courts to employ "equitable factors as the court determines are appropriate" to dictate recovery, which the statute helpfully suggests could include attorney's fees.²¹⁷ Some statutes address only specific kinds of contaminants.²¹⁸

Like with torts, CERCLA hinders gardeners by requiring a PRP.²¹⁹ Many of the individuals or corporations who would otherwise be liable might now be gone, especially in urban environments where the land was collectively polluted over several decades by innumerable sources. This is not a problem when the government wants to remediate land; the Superfund was created for this very situation.²²⁰ But private parties do not have access to the Superfund, so the only way to recoup clean-up expenditures is through lawsuits against PRPs. Absent a PRP, prospective plaintiffs are out of luck.

C. PRIVATE PARTY-ACCESSIBLE FUNDS HAVE BEEN SUCCESSFUL IN THEIR RESPECTIVE FIELDS

Soil contamination reimbursement reserves have numerous advantages. For one, any eligible private party may recover under the Petrofund²²¹ or ACRRA,²²² so long as the contamina-

completion when an elected official from the site's congressional district sits on a Superfund oversight committee.")).

214. Klass, *supra* note 96, at 905.

215. *Id.*

216. WASH. REV. CODE § 70.105D.080 (2012); *see also* MINN. STAT. § 115B.14 (2005); *see also* Key Tronic Corp. v. United States, 511 U.S. 809, 819 (1994) (disallowing prevailing CERCLA litigants to recoup attorney's fees).

217. WASH. REV. CODE § 70.105D.080.

218. *Compare, e.g.*, 42 U.S.C. § 9601(14) (2006) (federal Superfund law expressly excluding petroleum), *with* MINN. STAT. §§ 115C.01–.13 (2010) (Minnesota's Petrofund program dealing only with petroleum).

219. Reitze, Jr. et al., *supra* note 201, at 383.

220. *See* Richard L. Revesz & Richard B. Stewart, *The Superfund Debate, in* ANALYZING SUPERFUND: ECONOMICS, SCIENCE, AND LAW 8 (Richard L. Revesz & Richard B. Stewart eds., 1995).

221. *See* MINN. STAT. § 18E.05, subdiv. 2–3 (2005).

tion at issue is petroleum or fertilizers. This takes the burden of initiating actions under CERCLA or MERLA off the government. Many of these programs have been very successful. The Petrofund has enabled the investigation and cleanup of over 13,000 petroleum-contaminated sites in Minnesota over the program's twenty-five-year existence.²²³ This is an impressive statistic, considering that in 1991, the entire state of Minnesota had 36,000 tanks at 13,000 sites.²²⁴ Without the Petrofund, its director predicts that most of these sites would never have been remediated, and many tank and property owners would have gone insolvent trying to pay for the work themselves.²²⁵

Nevertheless, the use of existing funds is often limited in scope. For example, the Petrofund covers only the remediation of petroleum spills and the removal of underground storage tanks.²²⁶ The Petrofund sunsets every few years, necessitating a perennial legislative debate on renewing the program.²²⁷ Furthermore, the Petrofund continuously faces funding issues.²²⁸ The popularity of the program has previously overwhelmed the board, limiting its ability to control costs²²⁹ and increasing wait times for applicants to have their claims reviewed.²³⁰ Minnesota, like many states, has struggled financially in the recent recession.²³¹ Still, these programs can be affordable for state legislatures if they are kept small in scale. Programs such as ACRRA offer legislatures flexibility because the amount in the

222. See *About ACRRA*, *supra* note 129.

223. E-mail from Fischer, *supra* note 123.

224. Jeanette H. Leete, *Ground Water Quality and Management in Minnesota*, 56 J. MINN. ACAD. SCI. 34, 37 (1991).

225. E-mail from Fischer, *supra* note 123.

226. THE MINNESOTA PETROLEUM TANK RELEASE CLEANUP FUND, *supra* note 143, at 2.

227. For example, the Petrofund was amended in 2003 to expire on June 30, 2007. S.F. 905, 83rd Leg., Reg. Sess. (Minn. 2003).

228. PROGRAM EVALUATION DIV., OFFICE OF THE LEGISLATIVE AUDITOR, STATE OF MINN., PETROFUND REIMBURSEMENT FOR LEAKING STORAGE TANKS 64–65 (1993) (offering the program's popularity and generosity as reasons why it faces funding shortfalls); Meeting Minutes, Petroleum Tank Release Comp. Bd., *supra* note 143 (estimating that it could not hire a new Petrofund analyst in fiscal year 2010 "due to statewide budget constraints").

229. PROGRAM EVALUATION DIV., *supra* note 228, at 61.

230. *Id.*

231. See, e.g., Martha Stoddard, *Revenue Forecast Shrinks Shortfall*, OMAHA WORLD-HERALD, Oct. 27, 2012, at 1B (predicting a \$393 million budget shortfall for the State of Nebraska in July 2013).

fund stays within fixed bounds defined by statute.²³² As soon as the funds in the account reach the established upper limit, the fees charged are decreased to bring the fund back within the statutory bounds.²³³

III. POLICYMAKERS SHOULD IMPLEMENT A FUND TO REIMBURSE PROSPECTIVE URBAN GARDENERS FOR SOIL REMEDIATION

The central problem with soil contamination in urban agriculture is that it crops up on a small scale. Individually, mildly contaminated plots may not seem to present an issue worth legislative attention. However, soil contamination imperils all of the direct and indirect benefits conferred by urban agriculture.

Parallel law exists that could prove instructive in effectively addressing this issue. Certain hazardous substance funds reimburse private parties for cleaning up specified contaminants like petroleum or pesticides, or for specified uses, like dry cleaning. This Part argues that states or municipalities should establish funds for private party remediators, limited not by the type of contaminant, but rather by subject matter: urban agriculture. Doing so will foster urban agriculture and let government and society reap the concomitant benefits.

A. THE SOLUTION: A HAZARDOUS SUBSTANCE REIMBURSEMENT FUND FOR URBAN AGRICULTURE

States and cities should establish accounts to reimburse private parties for remediating contaminated property for use as an urban garden.²³⁴ A program would best succeed at the state or local level because those governments can adopt programs sensitive to their own unique geography and needs.²³⁵ Urban gardens are often located on smaller pieces of property that the federal government is not willing to address.²³⁶ States have more motivation to help idle, impacted properties, because

232. See MINN. STAT. § 115C.09, subdvs. 3(a)–(b) (2005).

233. See *id.* subd. 8.

234. Such accounts would be similar to Minnesota's and Tennessee's dry cleaner reimbursement funds. See *supra* note 135.

235. See *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (encouraging “experimentation in the fields of social and economic science” by the states); Andrea Lee Rimer, *Environmental Liability and the Brownfields Phenomenon: An Analysis of Federal Options for Redevelopment*, 10 TUL. ENVTL. L.J. 63, 106 (1996).

236. See *Rechtschaffen*, *supra* note 208, at 1342 (remarking upon federal EPA enforcement discretion).

that land is not contributing to the community tax base.²³⁷ An even more effective program could be run by local or metropolitan governments, which are closer to the sites and thus better able to monitor the fund's effectiveness.²³⁸ Local governments have already had several successes in the interstices of federal and state environmental regulation.²³⁹ Although states have access to larger tax bases than do cities for underwriting this proposal, a program targeted at urban farming might gain more traction if implemented solely in urban areas.²⁴⁰

Although an urban agriculture program is best implemented by states or municipalities, the EPA should continue to work concurrently with its state counterparts in developing a reimbursement account. Within the states, no single agency needs to administer the fund. For example, the Minnesota Department of Revenue administers both Petrofund and ACRRA, in conjunction with the Department of Commerce and the Department of Agriculture, respectively.²⁴¹ The state Department of Trade and Economic Development, meanwhile, administers grants to cover petroleum contamination situations explicitly circumscribed by the Petrofund.²⁴² To be clear, this fund would only be triggered by contaminated urban gardens or farms when the state decides not to exercise its enforcement discretion and remediate the soil itself, with the expectation that it will later recover from a PRP or otherwise recoup costs from its own Superfund.

237. Brian Thomas Lang, Note, *Ohio's Voluntary Action Program: Solving Ohio's Toxic Waste Woes?*, 60 OHIO ST. L.J. 285, 286 (1999).

238. See Fortney, *supra* note 7, at 1892–95 (arguing for the creation of a local voluntary cleanup program for these reasons).

239. Nestor M. Davidson, *Cooperative Localism: Federal-Local Collaboration in an Era of State Sovereignty*, 93 VA. L. REV. 959, 973 n.47 (2007) (citing examples including local involvement in brownfield development and watershed management and arguing that “given the prevalence of nonpoint source pollution regulation in modern environmental protection, environmental protection is increasingly a local government issue”).

240. See Letter from John McCain, U.S. Senator, et al. to Tom Vilsack, Sec’y of Agric. (Apr. 27, 2010), available at <http://www.agri-pulse.com/uploaded/knownyourfarmers.pdf> (hinting at tension between larger-scale, rural, industrial agricultural operations and the smaller, newer urban gardens championed in this Note).

241. Jeff Zachman & Susan D. Steinwell, *The Use of Tax Increment Financing in Redeveloping Brownfields in Minnesota*, in TAX INCREMENT FINANCING AND ECONOMIC DEVELOPMENT: USES, STRUCTURES, AND IMPACTS 254 (Craig L. Johnson & Joyce Y. Man eds., 2000).

242. *Id.*

With regard to a governing board, this proposal would be limited enough in scope that a small board of experts could retain a firm grasp on the issue, including the reasonableness of proposed costs, and any other issues that may arise.²⁴³ Board representatives could include an environmental expert,²⁴⁴ as well as representatives from nonprofits, university extension services, and state agricultural or health departments. Chemical and toxin manufacturers could also be chosen at random for board service, perhaps from a large trade group composed of several different types of contaminant manufacturers, to ensure their industry has a voice.

The biggest obstacle to this fund is political inertia. There is no way around it: this proposal costs money. The current economic climate is not especially conducive to new, costly proposals.²⁴⁵ But programs like the Petrofund in Minnesota are successful models. The Minnesota legislature continues to fund the Petrofund because lawmakers realize that without the financial impetus to undertake cleanups, far fewer parties, public or private, would address spills.²⁴⁶ Legislators are arguably still behind the curve on urban agriculture.²⁴⁷ But, as the popularity of urban gardening continues to swell and lawmakers take notice of the benefits and opportunities that have accrued over the past several decades,²⁴⁸ an urban agriculture contamination fund may look much more palatable to legislators.²⁴⁹ The current lack of a clear and consistent legal regime for soil quality in community gardens is attributable in part to the newness of the urban agriculture movement. This might bode better for the fund proposal, as the lack of comprehensive legal treatment is not traceable to affirmative political resistance.²⁵⁰ Legislative support for urban agriculture, in any form, also signals to the general public that urban agriculture is an important prac-

243. See *supra* notes 136–37 and accompanying text.

244. Experts are more well-versed in matters of risk regulation and can provide safety more inexpensively. BREYER, *supra* note 182, at 33–39.

245. See, e.g., Stoddard, *supra* note 231.

246. E-mail from Fischer, *supra* note 123.

247. See *Morning Edition*, *supra* note 19.

248. See Brown & Jameton, *supra* note 34, at 23 (mentioning previous congressional subcommittee hearings on home gardens and Congress's 1977 allocation of \$1.5 million to the Urban Gardening Program to promote urban farming).

249. E-mail from Fischer, *supra* note 123.

250. Where explicit biases do exist, "[b]road appreciation of the benefits of urban agriculture is needed to overcome both traditional and modern biases." SMIT ET AL., *supra* note 22, at ch. 11, at 5.

tice.²⁵¹ Before enacting CERCLA in 1980, Congress nearly included an administrative compensation fund for direct private party payouts—the “Compensation” in the Act’s title.²⁵² Congress narrowly voted to eliminate this program, fearing it would be unworkable to determine who should be compensated for toxic injury²⁵³—a concern more easily addressed in urban agriculture by having a board of experts govern disbursement from a niche fund.

Soil contamination in urban agriculture is easily ignored on an individual basis, but it is a huge problem in the aggregate. The law does not pay the problem much remedial attention, but that does not mean it is unimportant. A remediation fund is feasible because an increasing number of constituents want to form community gardens and grow low-cost, healthy, and safe foods. There is a reasonable and achievable funding arrangement that could work even in this economy.

B. THE MECHANICS OF THE PROPOSED FUND

The scale of the remediation program would be flexible. The statutory account minimums and maximums are completely up to the state or local government to set. A state can keep the scale of the program small in size and temporality, through sunset provisions long enough to test the concept’s effectiveness. The enacting jurisdiction could also let the appropriate administrative agency or the fund’s board promulgate administrative rules setting the program’s size.²⁵⁴

The program’s voluntary nature is necessary because the wholesale remediation of all contaminated properties is not cost effective. Cost effectiveness is a recurring theme throughout CERCLA, which makes PRPs in remediation actions responsible for all costs incurred by the government not inconsistent

251. See 157 CONG. REC. E1712-03, E1713 (daily ed. Sept. 23, 2011) (statement of Rep. Cleaver) (“We need to teach our young healthy eating habits, promote physical activity, and increase access to fresh foods by . . . embracing farmers markets and urban farming.”).

252. *Setting the Bar for “Injury” in Environmental Exposure Cases: How Low Can It Go?*, 42 ENVTL. L. REP. NEWS & ANALYSIS 10785, 10787 (2012).

253. *Id.*

254. Cf. *In re Polar Bear Endangered Species Act Listing & § 4(d) Rule Litig.*, 794 F. Supp. 2d 65, 108 (D.D.C. 2011) (expressing deference to administrative agencies when “examining conclusions made at the frontiers of science” (internal quotation marks omitted) (citing *Balt. Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 103 (1983))).

with the National Contingency Plan.²⁵⁵ The National Contingency Plan, in turn, must include “means of assuring that remedial action measures are cost-effective over the period of potential exposure to the hazardous substances or contaminated materials.”²⁵⁶ The Code of Federal Regulations provides further criteria for determining cost effectiveness: long-term effectiveness and permanence, reduction of toxicity, mobility, or volume through treatment, and short-term effectiveness.²⁵⁷

This emphasizes that despite the very real danger posed by soil toxins, overkill is not necessary. Any gardener will need to thoroughly assess the contamination *in situ* and determine whether building a garden is feasible considering the level of unhealthy contaminants. The board of a hazardous urban agricultural substance fund can use a “reasonable” standard to help determine whether or not to disburse funds, which is how the Petrofund operates.²⁵⁸ The program might also apply only to sites that pose a health risk above a proscribed level.²⁵⁹ This is in part because additional regulations cost money that would otherwise be directed to health care expenditures.²⁶⁰ Of course, technology is advancing so gardeners in more polluted environments are increasingly able to remediate to the point where gardening is advisable.

C. FUNDING SOURCES

The appropriate state or municipality could levy taxes on both polluters and parties engaged in urban agriculture. Polling shows Americans are generally more receptive to programs that impose costs not on the public but on abstractions like “companies” or “power plants.”²⁶¹ This has been done before. Federal Superfund financing comprised three separate taxes

255. 42 U.S.C. § 9607(a)(4)(A) (2006).

256. *Id.* § 9605(a)(7).

257. 40 C.F.R. § 300.430 (2012). A more extensive cost-benefit analysis is outside the scope of this Note.

258. *See* MINN. STAT. § 115C.09, subdiv. 3(b) (2005) (“A reimbursement may not be made from the fund under this chapter until the board has determined that the costs for which reimbursement is requested were actually incurred and were reasonable.”).

259. *Cf.* Fortney, *supra* note 7, at 1885–86.

260. One estimate holds that a statistical life is lost for every \$15 million expenditure. Cass R. Sunstein, *The Arithmetic of Arsenic*, 90 GEO. L.J. 2255, 2278 (2002).

261. Cass R. Sunstein, *On the Divergent American Reactions to Terrorism and Climate Change*, 107 COLUM. L. REV. 503, 514 (2007).

levied on chemicals, petroleum products, and corporations' alternative minimum taxable income in excess of \$2 million,²⁶² or at least until 1995 when Congress allowed those taxes to expire.²⁶³ With a program such as ACRRA, it is easy to identify who to tax: manufacturers of pesticides and fertilizers.²⁶⁴ This makes sense because the parties who benefit from pesticide and fertilizer production should be the ones to pay for those products' deleterious effects.²⁶⁵ Because the issue of contamination is related to property, the fund should tap into industrial property taxes.

But it is infeasible to cherry-pick a few manufacturers to tax when urban soil contamination results from so many sources. A better approach would identify who benefits from urban agriculture, especially when past polluters are insolvent, non-existent, or not readily identifiable (for example, the owners of automobiles in past generations that spewed lead-laden gasoline exhaust which then settled into nearby soil).²⁶⁶ Because a primary goal, and result, of urban agriculture is economic development, the community at large should shoulder much of the taxation. The urban agricultural sector could supplement this through, perhaps, fees on farmers market purchases, garden supply stores, or university tuitions. These sources should be combined with taxes on consumers or industrial properties.

This tax may seem politically infeasible at the outset, but a few facts are comforting. First, states and local governments already pay for urban garden initiatives out of their general revenue.²⁶⁷ More generally, Congress heavily subsidizes large rural farms, dispersing \$248.6 billion in its 2002 farm bill.²⁶⁸ The is-

262. Katherine N. Probst, *Evaluating the Impact of Alternative Superfund Financing Schemes*, in ANALYZING SUPERFUND: ECONOMICS, SCIENCE, AND LAW, *supra* note 220, at 154.

263. Schmid, *supra* note 102, at 511–12. As a consequence, the Superfund was almost entirely depleted by 2002. *Id.* at 512. There have been attempts in Congress to reinstate the tax. *See, e.g.*, 155 CONG. REC. H2887-03 (Mar. 3, 2009) (statement of Rep. Blumanauer) (calling for “the reinstatement of the ‘polluter pays’ principle for the Superfund program”).

264. *See supra* note 131 and accompanying text.

265. E-mail from Fischer, *supra* note 123.

266. *Id.*

267. Schukoske, *supra* note 72, at 367–68 (citing S. 2000, 208th Leg., Reg. Sess. (N.J. 1998)).

268. Jodi Soyars Windham, *Putting Your Money Where Your Mouth Is: Perverse Food Subsidies, Social Responsibility & America's 2007 Farm Bill*, 31 ENVIRONS ENVTL. L. & POL'Y J., Fall 2007, at 4 (“U.S. agribusiness is arguably

sue here is one of degree, not of absolutes. Second, the model Petrofund collects a two-cent tax when its fund drops to a certain level.²⁶⁹ Although the tax is technically assessed on gasoline wholesalers, in reality it is passed on to the consumer.²⁷⁰ So, this model is already in operation; proof of concept has been established.

Third, the great economic benefits of urban agriculture²⁷¹ mitigate the short-term pains of tax assessment. Money spent on local, urban agriculture stays local; communities benefit from the economic activities of soil testing and purchases of gardening equipment and clean soil.²⁷² Furthermore, individuals or collectives often buy property for the express purpose of establishing an urban garden, sometimes to sell produce for profit, which again makes its way back into the account via taxes.²⁷³ The remediation of mildly contaminated properties is in the best economic interests of cities, so their being put to productive use helps salve the wounds created by a *de minimis* tax.²⁷⁴ Special concerns may surround community gardens in particular. Some states and cities provide community gardens with seed money²⁷⁵ or grant them tax-exempt status,²⁷⁶ reduce their tax assessments,²⁷⁷ or allow tax deductions.²⁷⁸ But, a pri-

America's largest corporate welfare recipient."). *But see* Letter from John McCain et al. to Tom Vilsack, *supra* note 240 (criticizing a Department of Agriculture initiative designed to increase interest in production agriculture as "completely detached from the realities of production agriculture" and "aimed at small, hobbyist and organic producers whose customers" are affluent urban locavores).

269. MINN. STAT. § 115C.08, subdiv. 3 (2005); *see* THE MINNESOTA PETROLEUM TANK RELEASE CLEANUP FUND, *supra* note 143.

270. *See* THE MINNESOTA PETROLEUM TANK RELEASE CLEANUP FUND, *supra* note 143.

271. Mogk et al., *supra* note 6, at 1531–32 (providing statistical data).

272. *Id.* at 1531.

273. Laura Berman, *Urban Farming Idea Slowly Sprouts*, DETROIT NEWS, Mar. 20, 2012, at A3, *available at* 2012 WLNR 5989265.

274. For instance, "a significant percentage of the garden members live outside of the communities where the gardens are located." Sheila R. Foster, *The City as an Ecological Space: Social Capital and Urban Land Use*, 82 NOTRE DAME L. REV. 527, 580 (2006). Commuting gardeners will likely bring tax dollars into the community.

275. *See supra* note 155.

276. *See, e.g.*, D.C. CODE § 47-1061 (2005) (transferring a parcel of realty to a community garden land trust and declaring such land to be exempt from taxation so long as it is available to public use).

277. *See* Mogk et al., *supra* note 6, at 1553–54 (discussing reduced tax assessments as a tool to promote urban agriculture).

278. *See, e.g.*, I.R.C. § 198(a) (2006).

vate remediation fund furthers the goals of tax bonuses and startup capital. Its implementation increases the value communities reap from those outlays of public money. Just like residential, single-user gardens, community gardens must purchase shovels, seeds, and clean soil from somewhere.

Using real numbers would illustrate how taxation could raise adequate contamination remediation funds. The State of Michigan collected almost \$5 billion in commercial, industrial, and utility property taxes in 2008.²⁷⁹ Adding an urban agriculture fee to raise that levy by 0.000683% would pay for 300 raised beds per year, assuming raised beds cost about \$112.²⁸⁰ The City of Boston's total tax levy was \$1.615 billion in 2010; a small percentage of that would also significantly benefit the urban gardening movement.²⁸¹ In Minnesota, a one-cent increase in the gas tax raises approximately \$27 to \$28 million.²⁸² A fraction of a cent could raise thousands of dollars.²⁸³ These taxes on polluters could also incentivize polluters to reduce their pollution, at least in theory.²⁸⁴ A tax on farmers markets could complement this tax base. The Williamsburg Farmers Market, with fifty-two producers, generated about \$48,970 in Virginia state sales tax in 2011;²⁸⁵ a ten-cent sales tax on similarly sized markets would greatly aid a fund. An aggregation of small amounts from several sources would build up a sizable and effective account. More money collected from this system of

279. STATE OF MICH., COMMERCIAL, INDUSTRIAL AND UTILITY PROPERTY TAX REPORT ii, 2 (2008), *available at* http://www.michigan.gov/documents/treasury/2825_2008_CIU_Tax_Levy_Report_279563_7.pdf.

280. *Compare Enact the Bay Street Area Raised Garden Beds Project*, BROWN UNIV., <http://brown.edu/Research/SRP/RAISED%20GARDEN%20BEDS%20PAMPHLET.pdf> (last visited Mar. 11, 2013) (describing a raised bed that can be built for \$112), *with Analysis*, MCGILL SCH. OF ENV'T, MCGILL UNIV., http://mse-research.mcgill.ca/envr401_2002/brownfields/analysis.html (last visited Mar. 11, 2013) (describing a raised bed with clean soil that altogether costs \$500).

281. Amanda Cedrone, *Homeowners in Boston Get Tax Rate Hike*, BOS. GLOBE, Dec. 21, 2011, at 2.

282. AMY VENNEWITZ, SENATE TRANSP. POLICY COMM., TRANSPORTATION FUNDING AND MINNESOTA'S VEHICLE REGISTRATION TAX (1998), *available at* <http://www.senate.leg.state.mn.us/departments/scr/report/transfund.htm>.

283. *See id.*

284. *See* Meghan E. O'Neill, Note, *Corporate Welfare?: State Tax Incentives for Air Pollution Control*, 35 CONN. L. REV. 1717, 1727 (2003).

285. *Farmers Market Q & A*, FARMERS MARKET COALITION, <http://farmersmarketcoalition.org/joinus/faq> (last visited Mar. 11, 2013).

taxation will likely stay in the community than money collected on food purchased in supermarkets.²⁸⁶

D. THIS PROPOSAL WOULD SOLVE MANY OF THE PROBLEMS OF EXPENSE AND DELAY PRESENTED BY CURRENT LEGAL APPROACHES

This scheme would solve the cost and motivation problems facing gardeners. If it is too expensive and inefficient to pursue soil remediation, either in terms of cost or in terms of effort, a gardener will likely buy his food at the store.²⁸⁷ Casual gardeners may be reluctant to overcome these hurdles, even when facing the myriad prospective benefits.²⁸⁸ Discouraged gardeners threaten the time and efforts of governments and community organizations that have trained the gardeners.²⁸⁹

Private parties would not have to clean their properties under this system. If landowners did not want to use their land for urban agricultural purposes, they would be under no obligation to do so. Gardeners and community garden collectives are always free to ignore a fund and address the problem through the more traditional “self-help” methods discussed earlier, such as building raised beds or remediating contamination with their own hands.²⁹⁰ Further, if a gardener has suffered personal injury on top of the property injury, litigation remains an additional or alternative option.

A gardening individual or organization would be required to take the initiative to prepare the site before they could apply for reimbursement. Although this might still deter urbanites from gardening, it would on the whole make it a lot easier to realize a garden. It would take much less time to self-remediate the property and file for reimbursement than it would be to lobby the EPA or a state department of environmental quality to clean the site (which would not likely be successful due to the relatively low level of contamination often found in many residential zones bearing gardens) or file suit against past PRPs.

286. See INDIE IMPACT STUDY SERIES: A NATIONAL COMPARATIVE SURVEY WITH THE AMERICAN BOOKSELLERS ASSOCIATION 8 (2012), available at <http://www.localfirst.org/images/stories/SLC-Final-Impact-Study-Series.pdf>.

287. See *id.*

288. See *supra* Part I.A.

289. Borrelli, *supra* note 23, at 279–80 (explaining how gardens need permanence to be effective).

290. See Mogk et al., *supra* note 6, at 1536–37.

The fund will need to address how long a reimbursement recipient must operate the property as an urban garden. If the owner of a garden abandons it two months after receiving remediation funds, program opponents might advocate making the owner return the money. However, this fund cannot realistically monitor every garden to which it gives money—at least not without dramatically ballooning the fund's budget. A more practical solution would be to require a short written proposal detailing how the applicant plans on gardening, including what steps they have taken to make the garden permanent and what costs they have sunk. A written proposal would assure the fund's governing body that long-term gardening will indeed occur on the site after the board disburses money. The program's upshot for recipients is free soil remediation—really, a benefit only realized in a gardening context. Thus, it is unlikely that many people will go through the effort to clean their soil if they are uncommitted to urban agriculture. Finally, clean soil, even if not used perpetually for a garden, has collateral benefits, including the decreased likelihood children will incidentally ingest or inhale lead in soil and fall ill.²⁹¹

This fund proposal might not fully address the environmental justice aspects of this problem. A hazardous substances remediation fund geared toward urban agriculture would still require an outlay of capital not readily available to lower-income people. Grants can partially fill this void, flawed as they are.²⁹² Such grants, which provide money up front to prospective gardeners, would solve the problem if there are sufficient payouts and the barriers to applying are relatively low. Gardens can become overly reliant on grants for continued business operation. However, a fund to fix soil contamination is, by its nature, a kickstart measure that does not engender reliance on a monetary source that might someday shrink, existentially imperiling the garden.

291. *Policy Barriers and Incentives to Reusing Brownfields for Community Gardens and Urban Agriculture: Urban Agriculture Webinar #2*, U.S. ENVTL. PROT. AGENCY, transcript available at http://www.epa.gov/swerosps/bf/urbanag/webinar2_transcript.htm. Even if the money goes toward constructing raised beds, which still allow the inhalation of contaminated soil that surrounds the raised beds, a gardener necessarily brings at least some clean soil onto the property to put in those beds. See *supra* notes 48, 152 and accompanying text.

292. See *supra* Part II.A.

CONCLUSION

It is vital to address soil contamination in urban agriculture. Harmful contaminants can lurk in the soil, and sicken people working in the soil and eating food grown there. As urban farming explodes in popularity, more and more people will encounter this problem. Current legal approaches, while useful, are too narrow to achieve the ultimate objective of incentivizing people to garden in dense urban environments and grow low-cost, healthy, and safe foods. The primary shortcoming of these tools is that a gardener must first identify a party responsible for contaminating the property and then sue him. Even when a gardener is able to find a solvent responsible party, pursuing litigation is prohibitively costly and time-intensive for most. However, a successful remedial system operates outside of urban agriculture. Funds that reimburse private parties—be they the polluters responsible or unrelated third parties—have succeeded. Most of these funds cover only certain chemicals or metals.

But lawmakers and agencies can, and should, create a reimbursement fund to cover urban agriculture. A successful fund would reimburse private parties that prime their land for agricultural purposes. Eligible expenditures could be pre-approved, so as to minimize gift and ensure gardeners are remediating in a cost-effective manner. The account could be limited in the capital it carries, and funded by taxes assessed on the urban farming community or general public in any number of ways. The program could sunset after a few years to allow its implementers to evaluate its worth and effectiveness. The small and limited nature of this regime is essential to its attractiveness to governments in an economic downturn, even though healthy and functioning urban gardens have independent economic value. Regardless of the economy, the redevelopment of toxic lands into sustainable urban gardens is uniformly a good thing. Policymakers should use the law to accomplish this goal by adopting a program with a proven track record of success in closely related contexts to urban soil remediation.